



Final Decision

Energex's FRC Pass-through Application

November 2008

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PREAMBLE

As a result of the introduction Full Retail Competition (FRC) in Queensland, Energex has been required to improve its capacity to transfer customer data and other network data between electricity retailers in a reliable and timely manner. The costs of doing so fall into two main categories: capital expenditure required to implement new or enhanced IT systems; and ongoing operational costs associated with running and maintaining those systems.

Under the Queensland Competition Authority's (the Authority's) 2005 Electricity Determination, Energex can seek approval to pass through to customers any material cost increases that are incurred as a result of events beyond Energex's control. The introduction of FRC qualifies as such an event.

Accordingly, Energex applied to the Authority to pass through \$82.7 million in costs, comprising project implementation expenditure of \$53.9 million (\$38.9 million in Stage 1 and a further \$15 million in Stage 2) and operational costs of \$31.4 million, offset by \$2.7 million of savings from costs already included in the 2005 Determination. The Authority consulted stakeholders and sought expert technical advice from consultants, PB Associates.

The Authority released a Draft Decision on Energex's application in April 2008. At that time, the Authority proposed to approve \$20.1 million of the Stage 1 project implementation costs and the majority of the operational costs (\$29.9 million). The Authority also agreed with Energex that it would consider any further information provided by Energex regarding its "Stage 2" costs as part of the consultation process on the Draft Decision.

In response to the Draft Decision, Energex revised some of its cost estimates and provided further information to address the issues raised by the Authority in its Draft Decision. Energex reduced the amount it was seeking to pass-through to customers to \$76.4 million in total, comprising project implementation costs of \$33.5 million for Stage 1 and \$13.5 million for Stage 2 plus operational costs of \$32.2 million, offset by savings of \$2.7 million.

In this Final Decision, the Authority has approved the pass through of \$62.6 million of costs associated with the introduction of FRC, comprising \$34.0 million of project implementation costs (\$24.1 million for Stage 1 and \$10.0 million for Stage 2) and \$30.6 million of operational costs, offset by savings of \$2.0 million.

As the Authority has already allowed Energex to raise \$15 million of additional revenue in each of 2007-08 and 2008-09 in anticipation of approving some level of pass-through for FRC costs, this Final Decision will allow Energex to raise the balance of the approved revenue, a further \$30.0 million, in 2009-10.

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1. INTRODUCTION

1.1 Introduction of Full Retail Competition

Full Retail Competition (FRC) commenced in the Queensland retail electricity market from 1 July 2007. It was implemented through changes to the Electricity Act 1994, regulations, licences and the introduction of a new Electricity Industry Code.

Energex owns an electricity distribution network that is geographically located in the urban area of South East Queensland. The implications for Energex of FRC largely relate to the need to improve information technology systems and to facilitate the transfer of customers between competing retailers.

The Authority's 2005 Final Determination on the Regulation of Electricity Distribution set the regulatory framework to apply for the period 1 July 2005 to 30 June 2010. The regulatory arrangements applying to Energex were not affected by the introduction of competition to the retail segment of the electricity market.

1.1 Cost Pass-through Mechanism

In its 2005 Final Determination, the Authority provided for the pass through of costs where major exogenous and unforeseen events outside the control of a distribution network service provider (DNSP) impacted significantly, either up or down, on the returns of the regulated business.

The question to be answered in deciding whether a general cost pass-through is required is simply whether an event is of such an unusual and unexpected nature, and the associated costs likely to have such an impact on the returns of the business, that they should be passed through immediately to customers. The alternative is for the DNSP to accommodate these costs (along with any other variations) until the next regulatory reset.

The Authority placed a materiality threshold on a pass-through event of 1% of actual annual regulated revenue per event, based on the regulated revenue in the year of the event. With respect to FRC, the event relates to the requirement for Energex to modify its business systems to meet its new obligations directly associated with the introduction of FRC.

The Authority also noted in its 2005 Final Determination that:

...amounts of less than 1 % in any one year (whether associated with a cumulative event or not) are unlikely to be sufficiently large to warrant immediate pass-through to customers.

In addition, the Authority specified in its 2005 Final Determination that the actual or forecast costs associated with any pass-through event:

...must be agreed by the Authority, and the DNSP must demonstrate that the costs have not already been incorporated in the cost building blocks used to calculate the DNSPs' regulated revenue. Forecast costs will only be accepted where:

- *the costs are known with reasonable certainty; and*
- *it is known with absolute certainty that the costs will be incurred in the forecast year.*

The responsibility for establishing that a cost pass-through event has occurred, and the amounts to be considered, rests entirely with the regulated business. The business must establish beyond doubt that the event for which it is seeking to pass through the associated costs meets the definition established by the Authority, that the materiality threshold has been met and that the

costs in question warrant passing through to customers immediately. If it is relying on forecasts, these must be established “with absolute certainty”.

It is not up to the Authority to detect that an eligible pass-through event may have occurred nor is it the Authority’s responsibility to assemble the necessary information to enable a meaningful assessment of the relevant cost information. The Authority’s role is to assess the application and information presented by the regulated business.

1.2 Application for Pass Through

On 28 February 2007, Energex submitted an application to the Authority for approval to pass through costs totalling \$117.1 million relating to the introduction of FRC in Queensland to customers. The Authority released Energex’s application seeking comment from interested parties. Three submissions were received.

Given the timing of the application, it was clear that a Final Decision on Energex’s cost pass-through application could not be made before 2007-08 distribution prices had to be finalised. In order to reflect potential FRC costs in 2007-08 pricing, the Authority allowed Energex to raise a provisional amount of \$15 million in its 2007-08 prices.

With the issue of 2007-08 pricing resolved, it was agreed with Energex that the assessment of the application would be delayed to permit Energex to focus on ensuring its preparedness for FRC on 1 July 2007.

To better understand Energex’s application, the Authority and its consultant, PB Associates (PBA), held a workshop with Energex on 28 August 2007. At this workshop, it became apparent that Energex’s position had changed significantly from that presented in the application originally submitted to the Authority.

The Authority provided Energex with an opportunity to address these differences and a range of related issues of concern to the Authority and its consultant. Energex submitted a supplementary cost pass-through application on 28 September 2007.

In its supplementary application, Energex proposed to implement an FRC solution centred on PEACE, a billing and data management IT system. The new system commenced operations on 1 July 2007 and the implementation of the system was to be completed in two stages:

- (a) in Stage 1, the PEACE system would operate in parallel with its existing FACOM system until this was decommissioned; and
- (b) in Stage 2, Energex would migrate all customer data to the PEACE system and decommission FACOM.

The supplementary application indicated that Energex was seeking approval to pass through \$82.7 million of costs associated with the introduction of FRC, compared with \$117.1 million sought in its original application. The supplementary application was subsequently released for public comment. The Authority received three submissions in response.

PBA provided the Authority with its assessment of Energex’s cost pass-through application on 21 December 2007.

Due to these delays, the Authority allowed Energex to raise a further provisional amount of \$15 million in its 2008-09 pricing. Both the provisional amounts have been taken into account in making this Final Decision.

1.3 Submissions received in response to Energex's applications

The Authority received six submissions from stakeholders in response to the Energex's original and supplementary applications. All submissions noted the lack of information in them and suggested that significantly more detail was required in order to conduct a thorough assessment of Energex's application.

The submissions questioned whether all the proposed costs were FRC related rather than a result of the recent separation of Energex's electricity distribution and retail businesses, and the subsequent sale of the retail business.

Original application

Submissions on Energex's original FRC cost pass-through application were received from AGL, Origin Energy and TRUenergy in March 2007.

All submissions noted the lack of detail in Energex's application and suggested that significantly more detail was required in order to conduct a thorough assessment of Energex's application.

The submissions questioned whether all the proposed costs were FRC related rather than related to the recent separation of Energex's electricity distribution and retail businesses and the subsequent sale of the retail business.

TRUenergy suggested that Energex was seeking additional costs for activities which it should have been providing irrespective of FRC. AGL argued that Energex should not be permitted to recover costs required to bring Energex to a level of compliance it should have been achieving in the absence of FRC (but may not have been achieving due to vertical integration).

Origin Energy and TRUenergy claimed that Energex was overstating the legal and regulatory framework changes that would occur as a result of FRC. The submissions argued that the majority of instruments required to facilitate FRC were already in place in Energex and should only require enhancement of its capacity to comply.

TRUenergy and Origin Energy expressed concern at the quantum of Energex's proposed FRC related expenditure, particularly in light of the substantially lower expenditure identified in the Queensland Government's 2005 FRC cost benefit analysis report¹. That report estimated that the state-wide (Energex and Ergon Energy combined) cost to implement FRC would be approximately \$55 million in total over a five year period.

Supplementary application

In August 2007, the Authority's consultant, PBA, sent an extensive list of questions to Energex seeking clarification on a range of issues raised in the application and the public submissions.

Energex's response to the questions from PBA made it clear that the application could not be adequately assessed without substantial revision and that this task was not the responsibility of the Authority or its consultant.

Energex subsequently requested that it be permitted to submit a supplementary application. The Authority agreed to Energex's request and a supplementary application was received from Energex on 28 September 2007. The supplementary application was subsequently released for public comment. Submissions on the supplementary FRC cost pass-through application were received from TRUenergy, Origin Energy and Queensland Treasury.

¹ GHD *Full Retail Competition – Cost Benefit Analysis*, Report to Queensland Treasury (May 2005).

Queensland Treasury provided support for Energex's application indicating that it supported the pass through of incremental, prudent and efficient costs that were directly attributable to the introduction of FRC and were necessary for Energex to meet the obligations that arose as a consequence of the revised legal and regulatory framework for FRC.

TRUenergy suggested that the supplementary application did not adequately address the issues raised in retailer submissions to the original application. TRUenergy noted that, other than an adjustment to labour costs, no other items had been amended as a result of that initial consultation process.

Further, TRUenergy argued that Energex had still failed to demonstrate that a number of costs identified in its application were related to the introduction of FRC rather than resulting from the retail business sale.

TRUenergy also suggested that Energex's proposed costs remained substantially above those claimed by Victorian distributors. TRUenergy argued that the prior introduction of FRC in other Australian jurisdictions, together with the development of a national approach to transactions and protocols, should have delivered implementation cost efficiencies for Energex that were not available to the Victoria businesses.

Origin Energy noted that Energex's supplementary application provided more data and information than the original application and allowed a more informed assessment of the appropriateness of the costs claimed to be associated with FRC. However, Origin Energy had difficulty reconciling the costs claimed in Energex's supplementary application with those reported in the original application and suggested that a more detailed reconciliation should be provided.

Origin Energy again questioned the ability of Energex to accurately account for the costs incurred as a result of FRC and urged the Authority to undertake further analysis of the data submitted by Energex.

Origin Energy also noted the lack of detail provided by Energex in relation to its proposed "Stage 2" costs and suggested that approval of these costs should be withheld until more detailed data was provided to the QCA and relevant stakeholders.

More specific comments drawn from the submissions are noted in relevant sections later in this Draft Decision.

1.4 Independent Technical Analysis

The Authority engaged PBA to provide an independent technical assessment of the expenditure proposed by Energex for pass-through of costs associated with the introduction of FRC. The terms of reference for the consultancy required PBA to:

- (a) identify the scope of Energex's additional responsibilities under FRC in Queensland;
- (b) review Energex's existing IT and other systems and processes and identify the options available to either augment or replace existing systems and processes needed to meet its FRC obligations;
- (c) determine whether the options proposed by Energex and their costs are prudent and efficient given the size of Energex's Queensland network and in comparison to the systems used, and costs incurred, in other states;
- (d) identify the extent to which Energex's proposed capital and operating costs are incremental. Incremental costs are those costs that:

- (i) can be specifically attributed to the introduction of FRC; and
 - (ii) have not previously been allowed for in the capital and/or operating expenditure included in the 2005 Final Determination (including any expansion/replacement of related systems previously approved);
- (e) review Energex's proposed staff training strategy in terms of the scope and extent of training proposed and its relationship to current staff training provided by Energex;
- (f) review the prudence and efficiency of costs associated with the provision of services by related parties of Energex, including the proposed financing arrangements with SPARQ Pty Ltd (Energex's jointly owned IT service provider) for the provision of IT services;
- (g) review Energex's assumptions underpinning the proposed expenditure, including Energex's proposed churn rates, and comment on their reasonableness;
- (h) identify any efficiencies/synergies from the proposed new systems (for example Energex's overall operating costs may be lower than previously allowed by the Authority due to the introduction of new systems) and replacement of old systems (for example, old systems may no longer need to be enhanced/maintained or old systems could be sold or redeployed in other areas of Energex's operation);
- (i) identify the level of prudent and efficient incremental FRC costs (for both capital and operating expenditure), having considered all the matters above; and
- (j) where the consultant considers there is a material difference between Energex's proposal and the level expenditure deemed efficient, provide a detailed explanation.

2. ENERGEX'S INITIAL APPLICATIONS

Energex identified the key areas where the introduction of FRC would have an impact on internal processes and staff across the business. These were broadly categorised as follows:

- (a) standing data management and customer transfers – this refers to the maintenance of standing data in accordance with various national regulatory instruments and the development of interfaces between Energex and the National Electricity Market Management Company (NEMMCO);
- (b) service order management – this refers to the capability that Energex requires to respond to requests for service orders from retailers such as for new connections and de-energisations;
- (c) energy data management – this refers to the capability that Energex requires to read and transmit meter data to the market for market settlement purposes; and
- (d) network billing – this refers to the capability that Energex requires to bill multiple retailers on a basis that meets regulatory requirements.

In its initial application provided to the Authority in February 2007, Energex sought approval to pass through \$117.1 million of actual and anticipated costs associated with the introduction of FRC for the period 2005-06 to 2009-10. The costs associated with Energex's pass-through application, as originally submitted, are summarised in Table 1.

Table 1: Energex original cost pass-through application - February 2007
(\$million, nominal)*

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Implementation:						
Labour - Internal	0.2	2.0	0.2	0.0	0.0	2.5
Labour – External	0.3	0.8	0.2	0.0	0.0	1.3
Corporate Communications	0.0	0.5	0.1	0.0	0.0	0.6
SPARQ (ICT)	0.8	1.7	9.3	9.7	9.2	30.7
CVU-IVR	0.0	0.3	0.0	0.0	0.0	0.3
Sub Total	1.3	5.3	9.8	9.7	9.2	35.3
Operating costs:						
Labour - Internal	0.0	3.8	10.7	9.9	10.8	35.1
SPARQ (operating)	0.0	1.7	3.7	3.8	3.8	13.1
SEPL	0.0	0.2	1.2	1.3	1.3	4.0
Metering Dynamics	0.0	0.7	2.1	2.2	2.3	7.4
Sub Total	0.0	6.3	17.8	17.2	18.2	59.5
New FRC non-DUOS Service Costs	0.0	0.0	7.2	7.4	7.6	22.3
Total	1.3	11.6	34.8	34.3	35.1	117.1

Note: Totals may not add due to rounding

** In the Energex application, all values are in nominal dollars. Whilst it would be preferable to provide values in constant dollars, for comparative purposes, all values in this report have been similarly provided in nominal dollars.*

As noted earlier, Energex submitted a supplementary application on 28 September 2007. The supplementary application revised the total cost pass-through amount from the original

\$117.1 million to \$82.7 million. Energex advised that the reduction to the proposed cost pass through was principally due to:

- (a) removal of costs associated with excluded services (reduction of \$32.7 million);
- (b) rebasing of costs using actual (as opposed to forecast) labour rates (reduction of \$10.6 million);
- (c) the inclusion of \$15 million additional FRC costs anticipated to arise during the current regulatory period (referred to as "Project Implementation - Stage 2" in its supplementary application); and
- (d) removal of some forecast costs for IT equipment that had already been allowed for in the Authority's 2005 Final Determination.

In addition, Energex also revised its approach to the categorisation of some cost components. As a result, it is not possible to fully reconcile the original and supplementary cost pass-through applications submitted by Energex. However, the major differences are those noted above.

The details of Energex's revised supplementary cost pass-through application are shown in Table 2.

Table 2: Energex supplementary cost pass-through application - August 2007
(\$'000, nominal)

	2005-06 Actual	2006-07 Actual	2007-08 Forecast	2008-09 Forecast	2009-10 Forecast	TOTAL
FRC Project Implementation Costs - Stage 1						
Labour - Internal	143	1,699	98	0	0	1,940
Labour - Contract	231	844	1,258	0	0	2,332
Other Project Administrative Costs	18	159	600	0	0	777
Corporate Communications	0	227	0	0	0	227
CVU-IVR	0	82	182	0	0	264
SPARQ (ICT) – Asset Service Charge	770	0	11,599	10,861	10,123	33,353
Total Project Costs – Stage 1	1,161	3,011	13,738	10,861	10,123	38,894
FRC Operational Costs						
Labour – Internal	0	55	3,723	4,975	5,199	13,952
SPARQ (ICT)- Maintenance and Support	0	0	3,676	3,777	3,881	11,334
SEPL – Labour	0	32	547	0	0	579
Metering Dynamics - Labour	0	55	1,466	1,613	1,685	4,819
Metering Dynamics – Sample Meters	0	0	240	247	253	740
Total FRC Operational Costs	0	143	9,651	10,611	11,019	31,424
New FRC non-DUOS Service (Re-en and de-en Costs)	No longer included in the application					
Total FRC Costs – Stage 1	1,161	3,153	23,388	21,473	21,142	70,318
FRC Project Implementation Costs – Stage 2						
Labour – Internal	0	0	1,038	0	0	1,038
Labour – External	0	0	438	0	0	438
SPARQ (ICT) – Asset Service Charge	0	0	1,110	6,424	6,024	13,558
FRC Costs – Stage 2	0	0	2,586	6,424	6,024	15,035
Less removal of IT costs in 2005 Determination						
Return on Assets & Depreciation for FACOM	0	0	0	107	99	206
Maintenance & Support FACOM	0	0	0	366	376	742
Return on Assets & Depreciation on Network Billing	45	290	319	560	524	1,737
Total FRC Costs	1,117	2,864	25,655	26,864	26,168	82,667

In its supplementary application, Energex presented its proposed FRC cost data in a format that reflected the FRC project stages and Energex's internal categorisation of costs. However, the titles used to describe the various cost categories did not generally provide an easily understandable description of the items and activities that could be interpreted by a reader external to the organisation and not familiar with the specific systems and processes employed by Energex.

In order to make the presentation of costs more understandable to readers and also to better align the analysis and treatment of the proposed FRC costs with those in other jurisdictions, PBA revised the cost categories provided by Energex as shown in Table 3.

Table 3: Revised categorisation of Energex FRC cost components

<i>PBA categories</i>	<i>Energex categories</i>
Project implementation costs	FRC Project Implementation Costs – Stage 1
Project Management and Implementation	Labour –Internal Labour- Contract Other Project Administrative Costs
Corporate Communications IT and Business Systems	Corporate Communications CVU-IVR SPARQ (ICT) Asset Services Charge
Operating costs	FRC Operating Costs
Labour for ongoing FRC activities	Labour - Internal Labour - SEPL Labour - Metering Dynamics
IT and Business Systems Maintenance Load Profiling	SPARQ (ICT) Maintenance and Support Metering Dynamics – Sample Meters
FRC Costs – Stage 2	FRC Costs – Stage 2

Note: Energex did not include “New FRC non-DUOS Service Costs” in its supplementary application.

The PBA cost categories included:

(a) *Project Implementation*

Project Management and Implementation. These costs represent the labour and other costs required to manage and implement the FRC project. It is common practice for businesses to record labour and related project set up costs separately from ongoing operating costs and to capitalise these costs as part of the overall project cost.

IT and Business System. These costs relate to the capital expenditure for new and modified IT and business systems acquired by SPARQ (a wholly own subsidiary of Energex) to enable Energex to meet the operating requirements of the electricity market under FRC. The arrangements whereby SPARQ charges Energex for use of these IT assets is discussed in more detail later.

(b) *Operating Costs*

Labour for ongoing FRC activities. These costs represent the labour costs related to carrying out new activities required following the introduction of FRC.

IT Business Systems Maintenance and Support. The costs in this category represent the ongoing software and hardware support costs relating to the business systems acquired for FRC activities and the labour provided by SPARQ to maintain and support these systems. PBA has also renamed “*Metering Dynamics – Sample Meters*” as Load profiling, which provides a more intuitive understanding of this activity.

Adopting the revised categorisations, the details of Energex's supplementary cost pass-through application from Table 2 are represented in Table 4.

Table 4: PBA classification of Energex supplementary cost pass-through application August 2007 (\$'000, nominal)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Implementation (Stage 1)						
Project Management and Implementation Costs	392	2,702	1,956	0	0	5,050
Corporate Communication	0	227	0	0	0	227
IT & Business Systems	770	82	11,781	10,861	10,123	33,617
Total (Stage 1)	1,161	3,011	13,737	10,861	10,123	38,894
Project Implementation (Stage 2)						
Project Management and Implementation Costs			1476	0	0	1476
IT & Business Systems			1,110	6,424	6,024	13,558
Total (Stage 2)			2,586	6,424	6,024	15,035
Operating Costs						
Labour for ongoing FRC activities	0	142	5,736	6,588	6,884	19,350
IT & Business Systems	0	0	3,636	3,777	3,881	11,334
Maintenance and Support						
Load Profiling	0	0	240	247	253	740
Total Operating Costs	0	143	9,651	10,611	11,019	31,424
Less IT Costs from 2005 Final Determination	(45)	(290)	(319)	(1,033)	(999)	(2,685)
Total FRC costs	1,117	2,864	25,655	26,864	26,168	82,667

The discussion of Energex's supplementary application is in accordance with these revised categories. However, it is possible to reconcile the costs associated with the revised cost categories back to Energex's supplementary application using Table 3.

2.1 Energex's Proposed FRC System

According to Energex, the major challenge imposed by the introduction of FRC was the requirement for Energex to provide additional functionality from its IT and business systems. A complicating factor for Energex was that these changes needed to be made within a short period of time.

On 28 September 2005, the Queensland Government announced that FRC would commence on 1 July 2007. This gave Energex 21 months to select and implement its FRC solution. Initially, it was expected that the FRC solution (and therefore costs) would be shared with Ergon Energy. However, the problem and solution became unique to Energex when it became clear that the implications of FRC for Ergon Energy would be limited.

In October 2005, Energex commenced a three-month investigation of alternative FRC solutions. When ranking alternative options to meet its obligations under FRC, Energex sought first to re-use an existing system, then to buy an off-the-shelf product and as a last priority to build a new system. Energex also sought to ensure that, where possible, consolidation of systems would be preferred to avoid fragmentation of its IT systems.

At the end of its three-month investigation, Energex had developed a conceptual IT architecture plan, a high level implementation plan and high level view of end-to-end FRC business

processes. Accenture, a management consulting and technology services company, was employed by Energex to assist in designing the final FRC solution.

Two FRC solutions were considered by Energex: a solution based on PEACE and another solution based on FACOM/Siebel. The two systems had similar overall costs and were evaluated in detail over a three month period commencing in February 2006. The selection of the FRC solution is described in detail in Energex's supplementary application. However, in summary, Energex selected the PEACE solution for the following reasons;

- (a) the system had already been adopted in New South Wales (NSW);
- (b) as an existing system, it would benefit from previous experience;
- (c) market interaction components could be purchased;
- (d) PEACE did not have some of the limitations of FACOM; and
- (e) some FACOM resources would not be available during 2006 and 2007.

Consultant's Assessment

Of the eight parties invited to prepare competitive tenders to provide expert technical advice during the implementation phase of FRC, six proposals were received and Accenture was eventually selected by Energex. PBA considered that Energex would have required such advice given the complexity of modifying IT and other business systems to meet the requirements of FRC. PBA also considered that the tendering process resulted in the most experienced and capable tender being accepted by Energex.

PBA considered that the choice of PEACE, a highly automated system, was appropriate given the number of customers connected to the Energex network and the number of transactions (messages regarding customer services) that must be complied with under the stringent communication protocols for FRC in Queensland. Furthermore, PBA accepted that PEACE was also a proven system and, given the limited time available, would be less likely to incur problems during the short period that was available for implementation.

In normal circumstances, PBA would have expected that, once the PEACE system had been implemented, costs associated with upgrading or maintaining the system being replaced would be avoided. However, Energex claimed that it was not able to discard the old FACOM system as it was required to continue to operate and maintain this system in order to provide operational support to Allgas, Sun Retail and Powerdirect Australia, a transitional requirement imposed on Energex in the sale agreements for these retail entities.

PBA considered that maintaining two separate systems would add to complexity and, due to the short time available to Energex, meant that FACOM could not be decommissioned at the same time that PEACE was implemented. PBA noted that PEACE would initially be used to manage customers that took up market contracts under FRC while FACOM would continue to handle non-market customers until these customers could be transferred to PEACE at a later date, or to the new retail business owners. PBA considered that the retention of the FACOM system following the implementation of PEACE was appropriate.

In summary, PBA considered that Energex had:

- (a) considered an appropriate range of options;
- (b) made the best use of existing available systems from other jurisdictions;

- (c) adopted sensible automation of processes and interfaces where manual processing would not work well; and
- (d) selected a solution that could be implemented within the (limited) time available.

PBA considered that, in the absence of FRC, the new system would not otherwise have been required. However, PBA acknowledged that, at some point in the future, Energex would have been required to update its IT systems but it was not clear to PBA when this upgrade would have been required and PBA accepted that such an upgrade may not have been required during this regulatory period.

The Authority's Draft Decision

In its Draft Decision, the Authority acknowledged that Energex had limited time to evaluate, design and implement systems capable of meeting its obligations under FRC and that Energex appeared to have examined a reasonable range of alternative options that could fulfil its requirements.

The Authority was concerned by the additional costs incurred to install the new PEACE based system and, at the same time, to upgrade the pre-existing FACOM system. This decision did not appear to have been made by Energex in order to meet its FRC obligations but, rather, was imposed on Energex as a result of agreements entered into to facilitate the sale of Sun Retail, Sun Gas and Powerdirect.

While the Authority considered that the costs associated with the implementation of PEACE to meet Energex's FRC obligations were directly linked to the introduction of FRC, the FACOM system was in existence at the time of the 2005 Determination and any costs needed to maintain and operate that system throughout the current regulatory period were recognised at that time. The only issue concerning FACOM was the timing of decommissioning that system once its replacement had been installed.

3. INITIAL APPLICATION ASSESSMENT AND DRAFT DECISION

In April 2008, the Authority released its Draft Decision for public comment.

In its Draft Decision, the Authority considered that the main impact of FRC had been the need to transfer significantly greater amounts of customer and network information between electricity retailers in a reliable and timely manner. In response to Queensland FRC requirements, Energex had limited time to evaluate, design and implement systems capable of meeting its obligations. Energex appeared to have examined a reasonable range of alternative options that could fulfil its requirements.

The Authority's Draft Decision proposed to approve \$20.1 million of the Stage 1 costs and \$29.9 million of operational costs.

The main expenditures under Stage 1 of FRC Project Implementation related to the purchase and tailoring of information technology and business processes associated with PEACE and related IT systems that were required by Energex to operate under FRC. The Authority's proposed costs had also been adjusted to account for IT costs relating to the upgrade of the FACOM and Force systems, which appeared unrelated to the introduction of FRC in Queensland.

The main operational expenditures comprised anticipated costs to operate and maintain the FRC systems resulting from labour requirements to support ongoing FRC activities, IT maintenance and provision of load profiling data to NEMMCO.

The overall FRC costs were further adjusted to account for IT costs which were already included for in the 2005 Final Determination.

3.1 FRC Project Implementation Costs (Stage 1)

The costs proposed for pass-through by Energex under this category were actual costs in the year in which they were incurred and forecast costs for IT and Business Systems from 2008-09 onwards (see Table 5).

Table 5: Energex Project Implementation Costs – Stage 1 (\$'000, nominal)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Management and Implementation Costs	392	2,702	1,956	0	0	5,050
Corporate Communication	0	227	0	0	0	227
IT & Business Systems	770	82	11,781	10,861	10,123	33,617
Total	1,161	3,011	13,737	10,861	10,123	38,894

Project Management and Implementation

According to Energex, these costs related to the labour (Energex staff and external contract staff) associated with the "FRC Project Team" established within Energex from 2005-06 to 2007-08 to ensure its readiness for FRC by 1 July 2007.

The internal labour component was made up of Energex staff drawn from its customer service, data management, metering, call centre and regulatory teams. Over the period 2005-06 to 2007-08, the size of the FRC Project Team averaged 15.2 full time equivalent staff (FTE). Excluding costs for staff whose positions had not been back filled, Energex estimated the cost

of the FRC Project Team to be \$1.9 million (including staff on-costs but not including any allowance for corporate overheads).

Over this same period, Energex also engaged 23 consultants from four separate consulting firms at various times to assist the FRC Project Team. The consultants engaged by Energex included business analysts, project managers and system testers. Based on actual costs for 2005-06 and 2006-07 and forecast costs for 2007-08, Energex estimated consultant costs to be \$2.3 million in total.

In addition, Energex identified costs associated with a range of other activities as part of the FRC project implementation phase. These costs included staff training, legal expenses, travel, stationery and additional photocopying equipment. Between 2005-06 and 2007-08, these costs were estimated to be \$0.8 million.

Corporate Communications

In its application, Energex identified \$0.2 million in costs for corporate communications. These costs related to a public safety campaign, an information DVD developed for internal staff and an educational program for external stakeholders and contractors. In undertaking these activities, Energex sought to ensure that its staff, contractors and customers understood the role of Energex in an FRC environment. According to Energex, it was important that its staff understood and would be able to explain to affected parties the changes relating to FRC. For example, Energex wanted to ensure that customers would understand its ongoing role as the contact point for electrical emergencies.

IT & Business Systems

Energex claimed it incurred significant expenditure for upgraded IT and Business Systems in preparing for FRC. Over the current regulatory period, Energex identified expenditure of \$33.6 million for this purpose. The majority of this expenditure, around \$33.3 million, related to system changes required to meet the increased number of data and information flows required under the FRC operating protocols. The remaining costs, around \$0.3 million, related to an upgrade to Energex's customer service voice recognition system.

The selected IT solution comprised 13 separate modules (see Table 6 for a full listing), with the major components including:

- (a) PEACE (a new system to provide customer billing and premises management);
- (b) TOHT (meter reading and related service order management);
- (c) FACOM (upgrade to pre-existing billing system in order to link with new FRC systems);
- (d) FFA-FRC (upgraded system to support field work and service order functionality);
- (e) ArcFM (integration of Energex's existing GIS system with PEACE);
- (f) Integration (web interface for FRC systems); and
- (g) TCE (upgraded 'trouble call' systems required due to FRC)

For each of these FRC system modules, Energex outlined the associated hardware, software and developer costs. More detailed descriptions of each module were provided in Energex's supplementary application.

The IT assets required to meet Energex's FRC obligations were mostly purchased by SPARQ Pty Ltd, a jointly owned subsidiary company of Energex and Ergon Energy, with Energex required to pay SPARQ for access to the systems through an annual service charge. The annuity cost claimed by Energex was based on the capital cost of the IT assets using an assumed expected life of five years and including interest costs incurred by SPARQ during the construction period. Energex proposed that costs incurred by SPARQ during the design phase of the project in 2005-06 and 2006-07 would be charged directly to Energex and treated as an expense rather than being capitalised and included in the annuity payment.

In its supplementary FRC cost pass-through application, Energex removed forecast IT costs that had already been recognised in the Authority's 2005 Final Determination which would now be superseded by the systems it expected would be put in place to meet its FRC obligations.

Stakeholder Comments in Response to the Initial Applications

Origin Energy stated that it was unclear when the recovery of the implementation costs commenced.

Queensland Treasury suggested that, while it supported the pass through of costs incurred by Energex as a result of FRC, it considered these should be limited to costs that are incremental, prudent and efficient.

Consultant's Assessment

In preparing its advice to the Authority in response to the initial applications submitted by Energex, PBA undertook a detailed assessment of the underlying costs, including those capital costs incurred by SPARQ and proposed to be paid by Energex as an annuity.

PBA assessed these costs with respect to the amount of time that was devoted to the task by Energex staff and external consultants and by comparing the unit labour costs for external consultants and Energex staff with those available in the marketplace. Based on its analysis, PBA considered the proposed costs were within ranges it considered to be reasonable.

In terms of the amount of time allocated to FRC related activities, PBA was satisfied that the equivalent of 15.2 full time Energex staff employed for a year and 23 consultants for six months was, in total, reasonable given the size and complexity of implementing the FRC solutions over a three-year period. PBA noted that, in relation to Energex staff costs, on-costs had been included but corporate overhead costs had not. PBA accepted this approach was reasonable given that corporate overheads were not avoidable costs and, therefore, were not incremental.

Overall, PBA considered the costs proposed by Energex for FRC Project Management and Implementation were reasonable and had been demonstrated to be incremental to Energex's pre-FRC requirements.

With respect to "Corporate Communications", PBA considered that, while it was important for customers to understand who should be contacted in case of an electrical safety issue, the provision of such information to customers by Energex would be required irrespective of the introduction of FRC. PBA considered that these costs were incurred primarily through obligations on Energex that arise from the *Electrical Safety Act 2002* and were not directly related to the FRC.

The most significant of the Project Implementation costs were those designated for IT and Business Systems. In undertaking its assessment of these costs, PBA examined the costs incurred by SPARQ in establishing the FRC systems on behalf of Energex and subsequently considered the charges that SPARQ sought from Energex in order to recoup its costs. As noted

previously, PBA accepted the IT systems selected by Energex to meet its FRC obligations were appropriate. Consequently, what remained to be established was whether the costs that Energex proposed to implement its FRC systems were appropriate.

PBA examined the capital costs incurred by SPARQ for Energex's FRC systems and considered each of the different functional modules that comprised the overall system that would meet Energex's FRC obligations. The capital costs proposed by Energex for each module and the amount recommended by PBA are shown in Table 6.

Table 6: PBA recommended FRC capital costs (\$'000, nominal)

	<i>Energex proposed costs</i>	<i>PBA recommended</i>	<i>Variation \$'000</i>	<i>Variation %</i>
FDU-PEACE	15,429	12,658	-2,771	-18.0
TOHT	4,293	3,284	-1,009	-23.5
FACOM	4,834	3,958	-876	-18.1
Force	369	249	-120	-32.5
Nemlink	889	710	-179	-20.1
Integration	5,780	4,557	-1,223	-21.2
FFA-FRC	1,983	1,906	-77	-3.9
Arc FM	2,538	2,367	-171	-6.7
Reporting	534	513	-21	-3.8
TCE	509	469	-40	-7.9
GUS	292	265	-27	-9.2
EMAS	188	172	-16	-8.5
Hardware	1,387	1,387	0	0.0
Total	39,023	32,494	-6,529	-16.7

These costs were derived by Energex to account for the combination of input costs consumed in assembling each module and included:

- (a) SPARQ labour costs;
- (b) Accenture Labour costs;
- (c) Energex labour costs;
- (d) system supplier costs;
- (e) hardware costs; and
- (f) software costs.

The overall value of capital expenditure for FRC related IT and business systems was \$39 million, with \$33.6 million requested by Energex for pass through during the current regulatory period, with the balance to be recovered in the next regulatory period, years 4 and 5 of Energex's assumed five year asset lives. Energex calculated these amounts based on an assumed asset life of five years for most IT assets (three years for FACOM and Force owing to their imminent phase out). In addition, costs in 2005-06 and 2006-07 that were largely related to system design were expensed in the year they were incurred. Consequently, only the costs to be incurred in 2007-08 and beyond were included in the annuity amount expected to be paid by Energex to SPARQ for use of these assets. As Energex had assumed an asset life of only five years (or less) for IT components, the IT capital costs to be recovered during the current regulatory period represent 86 % of total capital costs.

PBA examined each of the capital costs components listed in Table 6 and recommended that a number of adjustments should be made, including:

- (a) that the overheads rates for the NemLink (32%) and SPARQ (30%) labour charges were significantly higher than for other vendors (all 18%). Based on knowledge of overhead rates for other IT vendors, and the lack of any reason why the NemLink and SPARQ overhead rates should be higher, PBA recommended that an overhead rate of 18% should be adopted for all vendors and the total costs associated with overheads be reduced by \$0.9 million (as detailed in section 5.2 of PBA's report);
- (b) that capital costs incurred by SPARQ in 2005-06 (\$0.25 million) had not been adequately justified because a detailed break up could not be provided by Energex. PBA recommended that these costs should be rejected;
- (c) that, in relation to Accenture, the systems integration consultant engaged by Energex;
 - (i) capital costs incurred in 2005-06 (\$2.6 million) not be accepted as Energex was unable to provide any breakdown of these costs to explain the purpose of the payments; and
 - (ii) 12 Accenture consultants providing advice on business delivery systems in 2006-07 was excessive (\$5.1 million) and that this task should have been able to be accomplished with six consultants given the additional expertise already available from SPARQ. Accordingly, PBA recommended that Accenture costs be further reduced by \$2.6 million; and
- (d) that all Energex staff costs for 2005-06 (\$0.21 million) not be accepted on the basis that, as with SPARQ and Accenture costs previously, Energex was unable to provide any detailed breakdown of these costs.

Aside from these reductions, PBA considered that the remaining costs proposed by Energex should be accepted.

The final cost component of the IT and Business Systems related to voice recognition and related customer data presentation equipment (\$0.3 million) which PBA considered to be reasonable.

Overall, the costs for IT and Business Systems recommended by PBA were \$32.8 million (see Table 7), a reduction of around 16 % on the costs proposed by Energex.

Table 7: PBA Recommended FRC Project Implementation Costs – Stage 1
(\$'000, nominal)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Management and Implementation Costs	392	2,702	1,956	0	0	5,050
Corporate Communication	0	0	0	0	0	0
IT & Business Systems	335	82	9,855	9,057	8,441	27,770
PBA Total	727	2,784	11,811	9,057	8,441	32,820
Energex Total	1,161	3,011	13,737	10,861	10,123	38,894

The Authority's Draft Decision

In its Draft Decision, the Authority noted that, despite several attempts to obtain information, Energex had been unable to provide an adequate explanation of the SPARQ and Accenture capital costs it had claimed as directly related to the introduction of FRC in 2005-06.

The Authority accepted that a rate of 18% for overheads rates applicable to SPARQ and NemLink consultancies was consistent with the rates generally applicable in the market. The Authority therefore adjusted the costs for these two service providers accordingly.

With respect to the PBA recommended reduction in costs for Accenture in 2006-07, the Authority noted that the costs attributed to Accenture represented around a third of the total FRC capital costs proposed by Energex. Given the extensive use of IT consultants from numerous external sources, including from Energex's joint venture specialist IT provider SPARQ, the Authority accepted the advice from PBA that these costs were excessive and did not represent prudent and efficient costs. Based on the advice from PBA, the Authority considered the prudent level of cost for the task undertaken by Accenture in 2006-07 to be \$2.6 million less than that proposed by Energex.

In addition to the recommendations from PBA, the Authority did not accept that SPARQ should be paid for the services it provided to Energex via an annuity designed to recover costs based on assumed asset lives of five years (three years for FACOM and Force). The Authority was of the view that services provided by related third party businesses should be transacted at arms length and reflect competitive pricing for equivalent services in the marketplace. Energex had not undertaken a competitive tendering process to establish the reasonable cost for the services to be provided by SPARQ. Accordingly, the Authority reviewed the basis for these annual charges.

The Authority considered that the asset lives adopted for the purpose of calculating depreciation should reflect a reasonable expectation of how long the asset will remain useful. The Authority noted that, while PBA accepted the five year life proposed by Energex, it had indicated that the typical life for major IT assets is in the vicinity of seven to 10 years. The Authority also noted that it had recently adopted a useful life for similar IT assets of 10 years for IT equipment that was purchased by Envestra to meet its FRC obligations. In addition, the Authority noted that the system being replaced (FACOM) was first introduced 18 years ago.

The Authority was therefore of the view that an assumed asset life of five years was insufficient and not in line with asset lives attributed to major IT assets in other contexts or by Energex to similar assets already in its regulatory asset base. In the absence of any convincing argument to the contrary, the Authority assigned these assets a 10 year asset life and recalculated the annuity payment proposed to reflect SPARQ's costs on this basis. In this context, the Authority noted that this change would not reduce the amount of costs to be recovered, only the period over which they are recovered. However, as a greater proportion of the costs would now be recovered in the next regulatory period, the amount needed to be passed through in this regulatory period would be reduced.

Finally, the Authority did not accept that Energex was entitled to claim any additional costs associated with upgrades to FACOM and Force. These systems were in place at the time of the 2005 Final Determination and the costs of operating and maintaining these systems would have been recognised in the cost building blocks for the 2005 Determination. Moreover, retail competition had been a reality for large customers for many years and the systems Energex had in place at the time of the 2005 Determination should have been capable of meeting Energex's obligations in relation to customer transfer for these customers, albeit that the volume of transfers would have been considerably less prior to the introduction of full retail competition. Upgrading these systems in order for them to run in parallel with the new replacement systems did not appear warranted, particularly when it was proposed that all transferring customers

would be accommodated on the new PEACE system and the FACOM system was (on the basis of asset lives proposed by Energex) well past its use by date. Accordingly, in its Draft Decision, the Authority removed all costs (\$4.6 million) associated with future upgrades to FACOM.

The only question remaining in relation to these systems was the point at which cost savings would emerge (or would have emerged had other obligations not required these systems to be maintained for longer) as they are decommissioned following the introduction of new systems (see section 3.4).

The Authority's initial assessment of Energex's project implementation costs – Stage 1 – is summarised in Table 8.

Table 8: QCA FRC Project Implementation Costs – Stage 1 (\$'000, nominal)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Management and Implementation Costs	392	2,702	1,956	0	0	5,050
Corporate Communication	0	0	0	0	0	0
IT & Business Systems	335	82	5,103	4,862	4,622	15,004
QCA Total	727	2,784	7,059	4,862	4,622	20,054
Energex Total	1,161	3,011	13,737	10,861	10,123	38,894

3.2 FRC Project Implementation Costs (Stage 2)

According to Energex, these costs would provide for migration of customer data from FACOM to PEACE and to upgrade several of the systems put in place prior to FRC commencement on 1 July 2007. In its supplementary FRC cost pass-through application, Energex stated that this data migration would occur by mid 2008-09, rather than after three to five years as assumed in its original application which did not include any costs for this item.

Table 9 summarises Energex's claimed costs for Project Implementation (Stage 2).

Table 9: Energex Project Implementation Costs – Stage 2 (\$'000, nominal)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
Project Management and Implementation Costs	0	0	1,476	0	0	1,476
IT & Business Systems	0	0	1,110	6,424	6,024	13,558
Total	0	0	2,586	6,424	6,024	15,035

Consultant's Assessment

As Energex had acknowledged that the forecast costs associated with Stage 2 of its Project Implementation were unreliable, PBA was unable to recommend acceptance of any of these costs. However, PBA considered that the data migration costs should be able to be accommodated using the forecast IT costs that had already been recognised in the Authority's 2005 Final Determination. Regarding the proposed upgrades to PEACE and other FRC related business systems, PBA considered that these upgrades could wait at least until the end of this regulatory period and should be considered as part of the next regulatory determination.

The Authority's Draft Decision

At the time of the Draft Decision, a particular concern of the Authority and stakeholders related to the lack of details provided by Energex on its claimed Stage 2 project implementation costs and the resulting assessment difficulties experienced by the Authority and its consultant. For the purposes of the Draft Decision, the Authority set aside all the Stage 2 costs but agreed with Energex that it would consider any further information subsequently provided by Energex regarding its Stage 2 costs when making its Final Decision.

3.3 FRC Operating Costs

Having set out the costs associated with the design and implementation of its FRC systems, Energex outlined the anticipated costs to operate and maintain these systems over the current regulatory period. According to Energex, these costs were incremental to the cost of existing operational activities. Energex's expected FRC operating costs are summarised in Table 10.

Table 10: Energex FRC Operating Costs (\$'000, nominal)

	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>
Labour for ongoing FRC activities	0	142	5,736	6,884	6,884	19,350
IT Maintenance and Support	0	0	3,676	3,777	3,881	11,334
Load Profiling	0	0	240	247	253	740
Energex Total	0	142	9,651	10,611	11,019	31,424

Labour for ongoing FRC activities

In its supplementary application, Energex indicated that, as a result of the introduction of FRC, additional staff would be required to undertake activities including customer transfers, service order management, energy data management and network billing. While these sorts of activities had previously been performed by Energex, FRC would result in a significant increase in the volume of these activities that would need to be performed.

According to Energex, additional staff would also be required to undertake metering related activities that are a consequence of FRC. Energex expected collection, validation and processing of meter data to increase metering costs overall by around 10%.

The additional staff would be employed by Energex, Service Essentials Propriety Limited (SEPL) and Metering Dynamics (both wholly owned subsidiaries of Energex). In total, Energex forecast that these costs would amount to \$19.4 million over the current regulatory period.

IT Maintenance and Support

Under the service agreement between SPARQ and Energex, SPARQ was to maintain and operate the FRC systems for Energex. As part of this arrangement, SPARQ would also meet the cost of software and hardware licence fees. According to Energex, these costs were expected to be just under \$4 million per year and total \$11.4 million through to the end of the current regulatory period.

Load profiling

NEMMCO requires use of system load profile data to ensure the safe operation and accurate management of energy loads across the network. Around 400 meters were located across the Energex network specifically for this purpose. Metering Dynamics performed load profiling activities for Energex to meet Energex's market settlement obligations. The cost of obtaining

this information was expected to be around \$600 per meter per year. Energex forecast the total cost to be around \$240,000 in 2007-08, increasing by inflation thereafter.

Stakeholder Comments

Several submissions, including those by TRUenergy and Origin, suggested that Energex's proposed costs included in its supplementary application were higher than FRC costs approved in other jurisdictions. Further, TRUenergy was concerned that costs associated with parts of Energex's previous retail business that had not been sold may have been included in the FRC cost pass-through application.

Consultant's Assessment

In considering Energex's operating costs, PBA examined how the three cost categories had been derived. Where costs included labour components, PBA examined labour rate benchmarks to determine whether the rates were reasonable. Similarly, the amount of labour (numbers of days) was also examined to determine whether the scope of work and time allocated to the task was reasonable. Based on this analysis, PBA suggested that the forecast operating costs set out in Energex's supplementary application compared favourably with costs approved by jurisdictional regulators in Victoria and South Australia.

Labour for ongoing FRC activities

In considering these operating costs, PBA examined a model used by Energex to estimate its labour requirements under FRC. PBA noted that the model used by Energex was very detailed and, based on its assessment of the model, suggested that estimates of effort for each of 200 different activities produced by the model should be robust. PBA was also satisfied that activities that should not be ascribed to FRC, such as excluded non-DUOS services, were separately identified in the model outputs.

With respect to unit labour costs, PBA accepted that the labour costs proposed by Energex were reasonable on the basis that these costs were typical of those across the electricity industry. However, PBA did not accept that labour rates should be escalated by 4.5% each year beyond 2007-08 in line with Energex's enterprise agreement. PBA considered that such increases in wages should be offset, to some extent, by productivity improvements. Therefore, PBA recommended that wage rates only be inflated each year by the consumer price index (CPI) used in the Authority's 2005 Final Determination of 2.76%.

Overall, PBA recommend that labour costs of \$17.8 million be accepted by the Authority rather than the \$19.4 million that was sought by Energex.

IT Maintenance and Support

Due to the complexity of the IT systems that Energex selected to meet its FRC obligations, PBA considered that an additional 10.5 FTEs for IT administration support was justified. In addition, PBA recommended that annual software licences for the PEACE and TOHT systems that would cost around \$2.5 million each year were consistent with the industry standard of around 20 % of the initial system purchase costs. Overall, IT Maintenance and Support costs of \$3.7 million per year (rising by CPI each year) were recommended by PBA.

Load profiling

PBA acknowledged that Energex would be required to provide load profiling data to NEMCCO as a requirement of FRC. According to PBA, the costs of obtaining this data proposed by

Energex were below costs that could be obtained in the market. On this basis, PBA recommended that the forecast costs should be accepted.

Table 11: PBA Recommended FRC Operating Costs (\$'000, nominal)

	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>
Labour for ongoing FRC activities	0	143	5,736	5,893	6,056	17,828
IT Maintenance and Support	0	0	3,669	3,770	3,874	11,313
Load Profiling	0	0	240	247	253	740
PBA Total	0	143	9,645	9,910	10,183	29,881
Energex Total	0	143	9,651	10,611	11,019	31,424

The Authority's Draft Decision

While TRU Energy had expressed concern in its submission regarding the potential for costs remaining after the sale of Energex's retail business to be reallocated to Energex under the guise of FRC costs, in moving from its original application to its supplementary application, Energex reduced its proposed operating costs by almost \$11 million (not including the removal of almost \$33 million in excluded non-distribution use of system (non-DUOS) services).

Given the favourable comparison of the overall FRC retail operating costs identified by PBA, the Authority was satisfied that the costs forecast by Energex were reasonable. However, the Authority also accepted PBA's advice regarding the escalation of labour cost components by CPI, rather than the higher rate included in Energex's enterprise agreement, in light of productivity gains that could reasonably be expected. On this basis, the Authority accepted FRC operating costs consistent with the recommendations of PBA, as shown in Table 11 above.

3.4 IT Costs from 2005 Final Determination

In its supplementary cost pass-through application, Energex removed all IT related costs that had been included in the 2005 Final Determination. The Authority considered this was inappropriate both because cost pass throughs are to be sought and assessed on an incremental basis, not as a complete reworking of the existing Determination, and because two years of the regulatory period had already passed by the time FRC commenced and the costs included for those years had (presumably) already been incurred. However, the IT related costs included in the Final Determination for the years following the commencement of FRC should have provided some offsetting savings once the new PEACE system was installed.

While the tight timetable imposed on Energex may have made it difficult to decommission existing systems at the same time as new systems were commissioned, the key question to be considered was what was a reasonable period to allow for decommissioning of redundant systems? In the absence of any evidence on this issue, the Authority assumed that an additional year (2007-08) should have been sufficient for this transition to be completed and costs beyond 2007-08 associated with redundant IT systems (following the introduction of PEACE) that were included in the 2005 Determination were removed (\$2.0 million).

3.5 Summary

In summary, the Authority's Draft Decision accepted that \$47.2 million of costs associated with the introduction of FRC were eligible for pass-through to customers, as shown in Table 12.

Table 12: FRC cost pass-through – Draft Decision (\$'000, nominal)*

	2005-06	2006-07	2007-08	2008-09	2009-10	Draft Decision	Energex Total
Project Implementation (Stage 1)							
Project Management and Implementation Costs	392	2,702	1,956	0	0	5,050	5,050
Corporate Communication	0	0	0	0	0	0	227
IT & Business Systems	335	82	5,103	4,862	4,622	15,004	33,617
Total (Stage 1)	727	2,784	7,059	4,862	4,622	20,054	38,894
Project Implementation (Stage 2)							
Project Management and Implementation Costs			0	0	0	0	1,476
IT & Business Systems			0	0	0	0	13,558
Total (Stage 2)			0	0	0	0	15,035
Operating Costs							
Labour to conduct ongoing FRC activities	0	143	5,736	5,893	6,056	17,828	19,350
IT & Business Systems	0	0	3,669	3,770	3,874	11,313	11,334
Maintenance and Support							
Load Profiling	0	0	240	247	253	740	740
Total Operating Costs	0	143	9,645	9,910	10,183	29,881	31,424
Less IT Costs from 2005 Final Determination				(1,033)	(999)	(2,032)	(2,685)
QCA Total FRC costs	727	2,927	16,704	13,739	13,806	47,250	82,667
Energex Total FRC costs	1,117	2,864	25,655	26,864	26,168	82,667	

* All values in Energex's application were in nominal dollars. Whilst it would be preferable to provide values in constant dollars, for comparative purposes, all values in this report have been similarly provided in nominal dollars.

Having considered the various cost elements proposed by Energex for pass through in its Draft Decision, the Authority noted that the costs incurred in 2005-06 and 2006-07 did not meet the materiality threshold set in the 2005 Determination and were therefore excluded from the revenue calculations at the time of the Draft Decision.

4. FINAL ASSESSMENT OF ENERGEX'S APPLICATION

In response to the Draft Decision, the Authority received submissions from AGL, Origin Energy and Energex in late May 2008.

AGL and Origin Energy supported the approach taken by the Authority in its assessment of Energex's FRC cost pass-through application. AGL considered that all costs relating to FRC needed to be efficient and the drivers of these costs should be identified clearly. AGL argued that distributors should be permitted to recover only those costs that were directly attributable to the introduction of FRC.

Origin Energy noted that the Stage 2 project was mainly concerned with the migration of customer and network data from FACOM to PEACE. Origin Energy was concerned that FRC costs be identified in detail and separately from data migration costs that were due to the privatisation process of Energex's retail arm.

4.1 Energex's Response to the Draft Decision

In its response to the Draft Decision, Energex provided additional information in support of a number of costs for which a detailed breakdown of expenditure was not previously provided. Energex applied for approval of the same amount of pass-through costs it sought previously, totalling \$82.7 million in costs in this regulatory period.

To assist in the final assessment, the Authority re-engaged PBA to assess the updated information provided by Energex. PBA sent an extensive list of questions to Energex seeking clarification on a range of issues regarding its application and received a detailed response from Energex on 25 August 2008.

On 26 August 2008, Energex submitted further supplementary information reducing the amount it sought to pass through down to \$76.4 million. In its revised submission, Energex advised the Authority that it was withdrawing the costs associated with the upgrade of the FACOM system from its application. Energex's revised project implementation and operational costs are presented shown in Table 13.

Table 13: Energex FRC Expenditures, August 2008 (\$'000, nominal)*

<i>Cost Category</i>	<i>2005-06 Actual</i>	<i>2006-07 Actual</i>	<i>2007-08 Actual</i>	<i>2008-09 Forecast</i>	<i>2009-10 Forecast</i>	<i>Total</i>
Project Implementation						
Project Management and Implementation Costs						
Labour - Internal	143	1,699	681			2,522
Labour - Contract	231	844	1,858			2,933
Other Project Administrative	18	159	671			848
Corporate Communication		227				227
IT & Business Systems						
CVU-IVR		82	182			264
Data Extraction			480			480
Post Go Live Stage 1			594			470
Peace Post Production Support			470			594
SPARQ Asset Service Charge	770		10,527	14,122	13,201	38,620
Total Project Implementation	1,161	3,011	15,464	14,122	13,201	46,958
Operational Costs						
Labour for ongoing FRC activities						
Labour – Internal		55	3,723	4,975	5,199	13,952
SEPL – Labour		32	547			579
Metering Dynamics - Labour		55	1,466	1,613	1,685	4,819
IT Maintenance and Support			3,921	4,022	4,126	12,069
Load Profiling			240	247	253	740
Total Operational Costs		143	9,896	10,856	11,264	32,159
Less IT Costs from 2005 Final Determination						
Return on Assets & Depreciation for FACOM				(107)	(99)	(206)
Maintenance & Support FACOM				(366)	(376)	(742)
Return on Assets & Depreciation on Network Billing	(45)	(290)	(319)	(560)	(524)	(1,737)
Total IT Costs from 2005 Determination	(45)	(290)	(319)	(1,033)	(999)	(2,685)
TOTAL	1,117	2,864	25,040	23,945	23,466	76,432

Note: Totals may not add due to rounding.

* In the Energex application, all values are in nominal dollars. Whilst it would be preferable to provide values in constant dollars, for comparative purposes, all values in this report have been similarly provided in nominal dollars.

The Authority received the PBA final report on 17 October 2008.

Using the same cost categories developed by PBA and referred to in the Draft Decision, the differences between Energex's August 2008 revised application submitted in response to the Draft Decision and the cost accepted by the Authority in its Draft Decision are shown in Table 14.

Table 14: PBA classification of Energex updated FRC Expenditures, August 2008 (\$'000, nominal)

<i>Cost Category</i>	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Energex Total</i>	<i>Draft Decision</i>
Project Implementation (Stage 1)							
Project Management & Implementation Costs	392	2,702	1,956			5,050	5,050
Corporate Communication		227				227	0
IT & Business Systems	770	82	9,833	9,050	8,450	28,184	15,004
Total (Stage 1)	1,162	3,011	11,790	9,050	8,450	33,463	20,054
Project Implementation (Stage 2)							
Project Management & Implementation Costs			1,253			1,253	0
IT & Business Systems			2,420	5,072	4,752	12,244	0
Total (Stage 2)			3,673	5,072	4,752	13,497	0
Operational Costs							
Labour for ongoing FRC activities		143	5,736	6,588	6,884	19,350	17,828
IT Maintenance & Support			3,676	3,777	3,881	11,334	11,313
IT Maintenance & Support (Stage 2)			245	245	245	735	0
Load Profiling			240	247	253	740	740
Total Operational Costs		143	9,897	10,857	11,263	32,159	29,881
Less IT Costs from 2005 Final Determination	(45)	(290)	(319)	(1,033)	(999)	(2,685)	(2,032)
Total FRC costs	1,117	2,864	25,040	23,945	23,466	76,432	47,250

Note: Totals may not add due to rounding.

Energex's revised (August 2008) application comprised:

- \$33.5 million in Project Implementation costs - Stage 1 (down from \$38.9 million in its previous application);
- \$13.5 million in Project Implementation costs - Stage 2 (down from \$15.0 million in its previous application); and
- \$32.2 million in Operational Costs (up from \$31.4 million);
- offset by \$2.7 million of savings on costs already included in the 2005 Determination.

4.2 FRC Project Implementation (Stage 1)

The Project Implementation Stage 1 costs refer to the costs of the IT and business systems to be put in place by 1 July 2007 to meet Energex's FRC obligations. In its cost pass-through application, Energex included costs relating to capital costs, corporate communication, staff costs involved in designing the FRC system and administrative costs.

As discussed in the Authority's Draft Decision, Energex's capital costs were made up of IT labour available in-house or contracted from its main IT provider SPARQ and from external providers (for example, Accenture). These specialised technical services were engaged by Energex to develop PEACE and related FRC systems.

In its Draft Decision, the Authority accepted all of EnergeX's proposed Project Management and Implementation costs (\$5 million), rejected all of EnergeX's proposed Corporate Communications costs (\$0.2 million) and reduced EnergeX's proposed IT and Business Systems costs from \$39 million down to \$20 million (see Table 12).

In its response to the Draft Decision, EnergeX focussed on those items rejected by the Authority.

EnergeX provided more detail on the Corporate Communication costs rejected by the Authority.

In relation to IT and Business System costs, EnergeX submitted new information in support of capitalised IT labour costs, including:

- (a) Accenture costs in 2005-06 and 2006-07 (\$2.6 million in each year);
- (b) SPARQ labour costs in 2005-06 (\$0.25 million);
- (c) EnergeX staff costs in 2005-06 (\$0.2 million); and
- (d) overhead costs (\$0.9 million).

In relation to Accenture costs in 2005-06 and 2006-07, EnergeX suggested that its engagement of Accenture consultants, of both a senior lead manager and an analyst for each project stream, was to provide specialist resources that were not available in-house or from its main IT provider SPARQ. EnergeX stated that it faced competing demands for IT resources and had allocated scarce internal and SPARQ IT resources to the most important FRC tasks. Accordingly, the Accenture lead resource was engaged to provide project management skills and experience for implementation of FRC, while the Accenture business analyst was allocated to more technical tasks.

In relation to SPARQ and EnergeX labour costs, EnergeX provided more detailed information and actual costs.

With respect to overhead rates, EnergeX argued that the proposal in the Draft Decision to reduce overhead rates (from 30% for SPARQ down to the standard rate of 18%) was highly contentious, noting the use of different approaches amongst distributors. Further, EnergeX stated that the WA Economic Regulation Authority had adopted overhead costs between 20% and 30% of total operational expenditures, which suggested that EnergeX's overhead rates were appropriate. EnergeX noted that a rate of 30% of total operational and capital expenditure was previously accepted in the review conducted by Burns and Roe Worley of EnergeX's expenditure submission for the 2005 Determination.

In addition, EnergeX sought approval of annual expenses relating to Architecture and Design costs in 2005-06 (\$0.38 million). In support of the proposed expenditures, EnergeX submitted a detailed breakdown of cost items that were previously not provided.

EnergeX also sought clarification from the Authority on the treatment of CVU-IVR (Customer View Utility – Interactive Voice Recognition) costs, noting that this was not explicitly mentioned in the Draft Decision.

Consultant's Assessment

In relation to the corporate communication costs, PBA noted that the majority of costs (\$180,000) related to the production of pamphlet materials distributed to customers and the remainder of the costs (\$47,000) represented expenditure on a DVD and an FRC educational campaign for external stakeholders and electrical contractors. Following its review of the

additional information provided by Energex, PBA was satisfied that the costs of the DVD and the educational campaign were related to FRC purposes. However, PBA was unable to determine whether the cost of producing a pamphlet to customers was related to FRC, as Energex did not provide sufficient information on this matter. PBA therefore retained its earlier advice that the \$180,000 cost was incurred primarily in response to Energex's obligations under the *Electrical Safety Act 2002* and were not directly related to FRC.

Based on the new information Energex provided, PBA reviewed and re-assessed Energex's proposed IT and business systems costs according to the amount of time that was devoted to the tasks by Energex staff and external consultants and by comparing the unit labour costs for external consultants and Energex staff with those available in the marketplace.

Following the withdrawal of FACOM costs by Energex, PBA also identified and adjusted costs associated with Energex, SPARQ and Accenture labour to exclude underlying FACOM related IT labour costs. Overall, PBA considered the proposed costs were within ranges it considered to be reasonable.

In its assessment of Accenture costs, PBA noted that it was not entirely clear at the time of its earlier assessment why two Accenture consultants were required for FRC tasks. Based on the new information presented by Energex, PBA agreed that additional Accenture staff were justified due to the tight timeframes and limited availability of other specialist resources, as internal staff and SPARQ resources were employed in other project areas. After removing the FACOM costs, PBA recommended that the remaining Accenture costs (\$2.3 million incurred in 2005-06 and another \$2.3 million in 2006-07) be accepted for pass through.

Of the SPARQ labour costs incurred in 2005-06 (\$0.25 million), PBA advised that the majority of these costs were incurred on the FACOM system which had now been removed from the application. Consequently, only the remainder of SPARQ labour costs (\$49,800) was considered by PBA to be relevant for assessment. PBA noted that SPARQ was the main IT provider to Energex and performed key design and evaluation functions necessary to support the FRC project during 2005-06. On this basis, PBA considered that the \$49,800 of SPARQ labour costs represented incremental costs and were recommended for pass through.

With respect to Energex labour costs in 2005-06 (\$0.2 million), PBA recognised that the FRC system involved joint development efforts by several external providers and it was to be expected that Energex as the end customer would want to have its own internal personnel working on key functions. PBA supported the tasks and functions performed by Energex labour and considered the levels of resources used was appropriate for the implementation of the FRC system.

However, in its review of overhead costs, PBA did not agree with Energex that the overhead rates of 30%-32% for SPARQ labour was appropriate, given that Energex's standard overhead rates for IT vendors were 18%. PBA acknowledged that the allocation of overhead costs was a standard business practice and rates higher than 18% had been accepted in certain regulatory decisions. However, PBA suggested that, as the usual overhead costs had already been allocated to existing operations, only overheads that were additional to existing overheads (incremental overheads) should be allocated to FRC activities.

In order to assess whether Energex's proposed overhead rates of 30%-32% were incremental, PBA sought, but did not receive, additional information from Energex on overhead costs. As there was no clear reason provided as to why SPARQ should incur higher overhead cost for the FRC project than other similar service providers, PBA maintained its view that the standard rate used in the Service Agreements between SPARQ and Energex (18%) should be adopted for all vendors and the total costs associated with overheads should be reduced by \$0.7 million for 2005-06 and 2006-07 (as detailed in section 8 of PBA's report).

PBA's recommendations on IT labour costs are summarised in Table 15.

Table 15: PBA recommended IT Labour costs in Stage 1 (\$'000, nominal)

<i>Cost Category</i>	<i>Energen proposed costs</i>	<i>PBA recommended</i>	<i>Difference</i>	<i>(%)</i>
Accenture 2005-06	2,607	2,346	261	-10
Accenture 2006-07	9,991	9,765	226	-2
SPARQ 2005-06	249	50	199	-80
Energen 2005-06	213	202	11	-5
Overhead reduction 2005-06	3,683	3,566	117	-3
Overhead reduction 2006-07	6,543	5,997	546	-8
Total	23,286	21,926	1,360	-6

Note: Totals may not add due to rounding.

Regarding the Architecture and Design costs, PBA considered that this phase was used by Energen to assess a range of FRC issues relating to regulatory, business and IT system options. In view of Energen's scope of work, timeline and availability of internal resources, PBA recommended the additional costs of the Architecture and Design phase (\$0.38 million) be accepted.

In respect of the CVU-IVR (Customer View Utility – Interactive Voice Recognition) cost, the Authority agrees that this cost was inadvertently excluded from the Draft Decision. PBA noted that this cost provided an upgrade to enable effective communication with multiple retailers and confirmed its previous recommendation that this cost (\$0.26 million) be accepted.

PBA's final recommendations regarding Energen's Stage 1 implementation costs are shown in Table 16.

Table 16: PBA Recommended Project Implementation (Stage 1) costs (\$'000, nominal)

<i>Cost Category</i>	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>PBA Total</i>	<i>Energen Total</i>
Project Management & Implementation Costs	392	2,702	1,956			5,050	5,050
Corporate Communication		47				47	227
IT & Business Systems	770	82	7,739	7,303	6,868	22,944	28,184
Total (Stage 1)	1,162	2,831	9,878	7,303	6,868	28,042	33,463

Note: Totals may not add due to rounding.

The Authority's Position

The Authority has reviewed the updated information provided by Energen which contained a more detailed breakdown within cost categories, and the advice provided by PBA.

With respect to Corporate Communication costs, the Authority accepts PBA's advice that costs incurred on the DVD and the educational campaign (\$47,000) were related to FRC but that the remaining costs were not clearly shown to be FRC related.

In relation to IT and Business System costs, in its Draft Decision, the Authority was concerned that Energen's proposal to upgrade the FACOM and Force systems in order for these to run parallel with the new PEACE was a response to its obligations relating to the sale of Energen's retail arm. As Energen has withdrawn FACOM costs from its application, there is no longer an

issue regarding FACOM. However, the Authority accepts PBA's adjustments to the underlying Energex, SPARQ and Accenture labour costs which were also related to FACOM.

In relation to FORCE, the Authority maintains its view that these costs (\$0.37 million) were not directly related to the introduction of FRC and should not be accepted for pass through.

On the basis of the detailed information presented by Energex, the Authority accepts PBA's advice regarding costs relating to Accenture, Energex, and SPARQ labour (after adjusting for FACOM and Force).

In relation to overhead costs (\$0.66 million), the Authority agrees with PBA and maintains its view that the standard rate of 18% should be applied to Energex's overhead costs. The Authority agrees with Energex that overhead rates may vary between distributors and jurisdictional regulators, and the benchmarking of overhead rates can be contentious. However, the overhead rates of 30%-32% proposed for SPARQ labour were much higher than the rates that had been used by Energex internally and for other vendors. Energex has not provided information to explain this difference in overhead rates and the Authority's adjustment of overhead costs is based on the standard rates used in the Service Agreements between Energex and SPARQ.

The Authority accepts PBA's advice regarding Architecture and Design phase costs and has included \$0.38 million for this item.

Finally, the Authority has included the costs (\$0.26 million) associated with CVU-IVR (Customer View Utility – Interactive Voice Recognition) which were omitted from the Draft Decision.

The Authority's assessment of Energex's project implementation costs – Stage 1 – after adjustment for FACOM and Force costs and the depreciation period (see section 4.5) is summarised in Table 17.

Table 17: Project Implementation (Stage 1) costs accepted in the Final Decision (\$'000, nominal)

<i>Cost Category</i>	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Final Decision</i>	<i>PBA Total</i>	<i>Energex Total</i>
Project Management & Implementation Costs	392	2,702	1,956			5,050	5,050	5,050
Corporate Communication		47				47	47	227
IT & Business Systems	770	82	6,478	5,986	5,677	18,993	22,944	28,184
Total (Stage 1)	1,162	2,831	8,435	5,986	5,677	24,090	28,042	33,463

Note: Totals may not add due to rounding.

4.3 FRC Project Implementation (Stage 2)

A particular concern raised by the Authority in its Draft Decision related to the lack of detail provided by Energex in support of its claimed Stage 2 costs and the resulting assessment difficulties experienced by the Authority and its consultant. As result, the Authority excluded all Stage 2 costs from its Draft Decision but agreed with Energex that it would consider any further information provided by Energex regarding its Stage 2 costs in preparing its Final Decision.

Energex's Response to the Draft Decision

In its supplementary application on the Draft Decision, Energex sought to pass through costs of \$14.2 million related to its Stage 2 project. These costs were made up of \$13.5 million for project implementation and \$0.7 million for ongoing operational costs (see Table 14). Energex noted that it had now substantially completed the Stage 2 project and the associated costs were known with certainty.

According to Energex, the Stage 2 costs were required to allow the full migration of customer data from FACOM to PEACE and to support the increased number of market transactions and customer churn resulting from FRC. Some of the proposed costs were also required to ensure compliance with new obligations relating to street lighting contestability, which commenced on 1 July 2008. To accomplish the above tasks, Energex undertook a combination of several activities, including:

- (a) upgrade of existing PEACE and related IT systems to replace and enhance FACOM functionality;
- (b) upgrade to the next version of PEACE (v8.09) to enhance its functionality;
- (c) integration between business systems; and
- (d) provision of inventory management for streetlights and unmetered supplies.

Energex did not provide a breakdown of costs relating to the above activities. Instead, Energex classified costs according to three categories: project management, IT business systems and capitalised maintenance costs.

The project management and implementation costs related to the labour (Energex staff and external contract staff) associated with the FRC Project Office responsible for the administration and development of Stage. Costs of \$1.3 million were proposed for 2007-08. Nearly half of this related to contracts for external staff (project managers, analysts and system testers). A similar proportion was allocated to internal employee costs (analysts, accountant, manager and support officer). The balance (\$70,325) was attributed to administrative expenses (entertainment, telephones, staff amenities, training and transport). Energex based its internal staff costs on the number of staff seconded to the FRC project who were backfilled in their previous role.

The majority of Stage 2 costs related to the upgrade of PEACE and related existing systems. As in Stage 1, Energex had arranged for the purchase and tailoring of IT and business systems through its subsidiary, SPARQ, for which the costs (asset service charge) were calculated as an annuity based on depreciation rates of five years and interest costs incurred by SPARQ during construction. For the current regulatory period, the Stage 2 asset service charge totaled \$10 million, occurring mainly in 2008-09 and 2009-10. The IT systems and upgrades in Stage 2 included:

- (a) PEACE (customer billing and premises management);
- (b) TOHT (meter reading and related service order management);
- (c) FFA-FRC (upgraded system to support field work and service order functionality);
- (d) ArcFM (integration of Energex's existing GIS system with PEACE);
- (e) Integration (web interface for FRC systems); and

(f) SLIM (Streetlight Inventory Manager).

To meet its obligations regarding the introduction of streetlight contestability from 1 July 2008, Energen submitted costs of \$1.6 million for the development of an IT module (SLIM) to manage the inventory of streetlights. SLIM was to be developed as an additional module to provide streetlight asset information already maintained in an existing database. Energen stated that, given considerable work already performed on PEACE, it was not prudent to extend the PEACE project scope to accommodate streetlight functions.

Energen's application for Stage 2 costs also included one-off maintenance costs to provide IT support and rectification of defects on the FACOM and PEACE systems that occurred in the migration of customer and network information, including:

- (a) PEACE Post Production Support (\$0.6 million) – warranty costs for ongoing support of the PEACE system;
- (b) Data Extraction (\$0.5 million) – SPARQ labour costs for the migration of remaining NMIs (National Metering Identifiers) within FACOM; and
- (c) Post Go Live enhancement (\$0.5 million) – Energen's costs to fix errors in the transfer of NMIs which occurred after the “go-live” date (1 July 2007) of the Stage 1 project.

Energen also identified a further \$0.7 million of hardware and license costs as ongoing IT maintenance and support and sought approval of this cost as part of its operational costs (discussed in section 4.4).

Energen's proposed Stage 2 costs are summarised in Table 18.

Table 18: Energen's FRC Project Implementation – Stage 2 (\$'000, nominal)

<i>Cost Category</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>
Project Management and Implementation				
Labour – Internal	583			583
Labour – Contract (external)	600			600
Other project management costs	70			70
Total Project Management	1,253			1,253
IT & Business Systems				
SPARQ (ICT) – Asset Service Charge	876	5,072	4,752	10,700
Peace Post Production Support	470			594
Data Extraction	480			480
Post Go Live Stage 1	594			470
Total Project Implementation – Stage 2	3,673	5,072	4,752	13,497
Operational Costs				
IT Maintenance & Support (Stage 2)	245	245	245	735
Total Stage 2 Costs	3,918	5,317	4,997	14,232

Note: Totals may not add due to rounding.

Stakeholder Comments

Origin Energy noted that the Stage 2 project related to the migration of FACOM data to PEACE and urged Energen to ensure Stage 2 costs were recorded in detail and separately from any data

migration costs that were due to the sale process (of Sun Retail). Origin Energy considered the detailed information was essential given that the introduction of FRC and the sale processes have occurred in parallel. Retailers and their customers should not be exposed to the costs associated with the sale processes.

Consultant's Assessment

In order to assess Stage 2 of the FRC Project Implementation costs proposed by Energex, PBA undertook a detailed assessment of the underlying costs, including those capital costs incurred by SPARQ and proposed to be paid by Energex as an annuity. PBA further identified and compared resources employed in Stage 2 against available market rates and the level of resources that were applied in Stage 1.

For project management costs, PBA considered that the internal labour costs were reflective of market rates and incremental, based on detailed records of staff being backfilled for new FRC roles. For external labour, the contract rates were comparable to the market rates payable to third party short-term IT contract staff, and consistent with rates payable in Stage 1. Energex also applied the same type of resources to perform the functions required for Stage 2 in order to provide continuity and make use of existing knowledge. In summary, PBA considered that the level of resources was incremental and consistent with the size and nature of the Stage 2 project.

PBA examined the capital costs incurred by SPARQ for Energex's FRC system – Stage 2. PBA considered each of the different functional modules that comprised the overall systems that would meet Energex's FRC obligations. The capital costs proposed by Energex for each IT module are shown in Table 19.

Table 19: Energex FRC capital costs – Stage 2 (\$'000, nominal)

<i>Cost Category</i>	<i>Energex proposed costs</i>
PEACE	9,488
TOHT	1,728
FFA-FRC	957
Arc FM	1,688
Integration	1,841
Reporting	89
EMAS	65
SLIM	1,163
Hardware	1,071
Total	18,090

Note: Totals may not add due to rounding.

PBA considered that the proposed upgrade of Stage 2 PEACE and related IT systems (including the upgrade to version 8.09 of PEACE) provided the functionality Energex required for full FRC capability. In addition, the upgrade of PEACE included capability which replaced the functionality previously covered in FACOM, including the complex route and meter reading management functionality. In total, the proposed PEACE upgrade provided 23 “change requests” that included the functionality to support and update new connections, disconnections and reconnections, and to undertake search of service orders.

Of the 23 change requests, PBA suggested that the functional changes would allow automatic processing of market messages and scope to reduce manual processing and user error. PBA

considered that these enhancements were related to FRC requirements and should assist Energex to minimise operating costs. PBA advised that costs of all 23 change requests were part of a fixed-price contract which did not identify individual item costs.

Overall, PBA considered that, in some FRC systems, it was possible to incorporate full functional capability in the system before it was implemented. However, Energex's implementation was fast-tracked to meet the FRC timeframe. Under this constraint, it would not have been feasible to include (Stage 2) enhancements during the earlier phase (Stage 1).

With respect to Energex's approach to the selection of vendor for the upgrade of PEACE, PBA was of the view that it was unlikely that alternative suppliers with detailed knowledge of PEACE software would be available to carry out the specialised tasks. Accordingly, PBA accepted Energex's choice of PEACE as the vendor was prudent.

Given the commencement of streetlight contestability from 1 July 2008, PBA accepted that the FRC system required an additional module in the form of the Streetlight Inventory Manager (SLIM) to meet the contestability obligations. In its analysis of proposed costs and resources, PBA concluded that the information was sufficient to demonstrate that SLIM was justified.

In considering the maintenance costs in Stage 2 (PEACE Production Support, Data Extraction and "Post Go Live"), PBA suggested that these costs were required for work to rectify defects associated with the migration of data and the adoption of major IT systems. PBA ascertained that those costs related specifically to Stage 2 activities occurring during 2007-08 and had not been included in any of the Stage 1 costs. The activities were consistent with standard practices by large enterprises and, while an opportunity might be available to recover some costs from external contractors for errors and defects, on balance, PBA accepted the costs were appropriate.

Similar to the Stage 1 project, Energex engaged internal (SPARQ) and external (Accenture) IT contract labour to implement the system changes required in Stage 2. PBA supported the proposed IT labour costs as these resources were considered necessary to implement the Stage 2 FRC project and the costs were broadly consistent with rates in Stage 1. In view of the additional functionality and scope of the proposed Stage 2 system, PBA considered that the costs were reasonable.

Consistent with its assessment of Stage 1 costs, PBA considered that overhead costs in Stage 2 should only be recovered on an incremental basis. PBA noted that overheads were allocated to the labour and contractor costs incurred by SPARQ at a much higher rate of 32% than the standard rate of 18%. In the absence of an explanation from Energex of this difference, PBA recommended that the standard rate should apply to both Stage 1 and Stage 2 Project Implementation. On this basis, PBA deducted \$0.5 million attributable to SPARQ overhead rates of 32% from total overhead costs incurred in Stage 2 (\$5.1 million).

The Stage 2 cost categories, after adjustment for depreciation period (see section 4.5), recommended by PBA are shown in Table 20.

Table 20: PBA Recommended Project Implementation Costs – Stage 2 (\$'000, nominal)

<i>Cost Category</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>
Project Management and Implementation				
Labour – Internal	583			583
Labour – Contract (external)	600			600
Other project management costs	70			70
Total Project Management	1,253			1,253
IT & Business Systems				
SPARQ (ICT) – Asset Service Charge	695	4,038	3,808	8,541
Peace Post Production Support	470			594
Data Extraction	480			480
Post Go Live Stage 1	594			470
Total Project Implementation – Stage 2	3,492	4,038	3,808	11,338
Operational Costs				
IT Maintenance & Support (Stage 2)	245	245	245	735
Total Stage 2 Costs	3,737	4,283	4,053	12,073

Note: Totals may not add due to rounding.

The Authority's Position

The Authority considered the additional information provided by Energex in support of its Stage 2 costs and the advice received from PBA. The additional information provided by Energex and the fact that costs have now largely been incurred has removed much uncertainty surrounding its previous cost claims.

The Authority accepts that IT assets and upgrades are required to introduce FRC systems and provide necessary preparation for transfer of consumers. The Authority recognised in its Draft Decision that Energex's overall option relating to the introduction of PEACE and upgrade through to Stage 2 was needed to meet FRC obligations. Given the removal of costs relating to the FACOM system and the need to transfer the remaining customers to PEACE, Stage 2 activities appear to be required to replace IT functionality which was previously delivered by the FACOM system and for the completion of the remaining FRC tasks.

On the basis of PBA's advice, the Authority considers that it is appropriate that key components of Stage 2 costs be approved for pass through. While there might be a question of whether the proposed enhancements are in some cases a business investment which would normally be undertaken by Energex, especially since PEACE has already been developed in Stage 1, the Authority accepts that the upgrade of PEACE and related enhancements of its functionality are required to be undertaken for FRC purposes. The Authority notes that Stage 1 of the FRC project was concerned with a limited and more manual FRC process, while Stage 2 involved integrated capability and business processes arising from the full migration of data from FACOM to the new PEACE system.

Consistent with the approach adopted for Stage 1, and the advice from PBA, the Authority has adjusted the overhead cost applicable to SPARQ based on the standard rate of 18% used in Service Agreements between Energex and SPARQ.

With respect to underlying asset life that is used to determine the IT (SPARQ) asset service charge, the Authority has adopted an asset life of 10 years, rather than an asset life of five years as proposed by Energex. The Authority has adopted this approach so that Energex's asset life

for FRC IT systems is consistent with the economic life adopted in its regulatory asset base. Additional details on asset life are provided in the section 4.5.

The Authority's assessment of Energex's project implementation costs – Stage 2 – is summarised in Table 21.

Table 21: Project Implementation (Stage 2) costs accepted in the Final Decision (\$'000, nominal)

<i>Cost Category</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Final Decision</i>
Project Implementation (Stage 2)					
Project Management and Implementation Costs		1,253			1,253
IT & Business Systems		2,123	3,375	3,205	8,703
Total (Stage 2)		3,376	3,375	3,205	9,956

Note: Totals may not add due to rounding.

4.4 FRC operational expenditures

Energex's Response to the Draft Decision

In its response to the Draft Decision, Energex sought approval for \$0.7 million over three years of additional hardware and software licences costs to support data migration and integrated FRC functionality in the Stage 2 project on the basis of additional data processing and transaction workloads. The hardware and software support licenses costs had been classified by Energex as ongoing IT maintenance and support costs for Stage 2, comprising an amount of \$244,911 per year.

Energex sought reconsideration of the escalation rate to be applied to ongoing labour costs in 2008-09 and 2009-10. Energex argued that its labour escalation rate of 4.5% was more appropriate than the CPI rate of 2.76% proposed by the Authority, on the basis that this was more in line with its enterprise bargaining agreement and reflected costs that would actually be incurred after taking into account productivity improvements. Further, Energex pointed to a number of studies and available statistics that indicated inflation rates and labour costs to increase between 3.5% and 5.9% from 2007-08 to 2009-10, suggesting that Energex's escalation rate was within a reasonable range.

Further, Energex suggested that the cost increases in 2008-09 and 2009-10 were not related to increases in staffing levels as indicated in the Draft Decision. Energex noted that the number of its staff (in full-time equivalents) did not increase beyond 2007-08. Rather, the 2007-08 headcount reflected only the staff recruitment in the first half of the year, while headcount numbers for 2008-09 and 2009-10 were related to employment for the full year.

Energex's expected FRC operational costs are summarised in Table 22.

Table 22: Energex Updated Operational Costs (\$'000, nominal)

<i>Cost Category</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Energex</i>	<i>Draft Decision</i>
Labour for ongoing FRC activities	143	5,736	6,588	6,884	19,350	17,828
IT Maintenance and Support		3,676	3,777	3,881	11,334	11,313
IT Maintenance & Support (Stage 2)		245	245	245	735	0
Load Profiling		240	247	253	740	740
Total	143	9,897	10,857	11,263	32,159	29,881

Note: Totals may not add due to rounding.

Consultant's Assessment

As part of its assessment of Stage 2 costs, PBA considered that the hardware and software licence costs were appropriate for an FRC system of this nature. Consistent with its approach for other maintenance costs, PBA recommended the proposed cost for pass through.

In relation to ongoing labour costs, PBA considered that, while real labour costs had been increasing at a rate greater than CPI in Queensland, the experience in Queensland and other jurisdictions indicated significant reductions in labour costs following the introduction of FRC. Recent FRC implementation by gas distributors in Queensland exhibited peak operational expenditure in the year that FRC commenced and a reduction of 20-40% in operational costs in the following year.

PBA noted that Energex had deployed highly automated processes for FRC, centred on a well recognised system (PEACE) and supported by extensive external resources with FRC experience (Accenture). Accordingly, Energex had recognised that FRC processes can be optimised to reduce staffing levels and had planned to reduce staffing costs to a limited extent (forecast levels).

Given the level of Energex's resources devoted to FRC and experience in other jurisdictions, PBA considered that Energex should be expected to minimise the effort required to manage FRC operations and should be able to constrain increases in labour costs. PBA therefore maintained its original advice that it would be efficient for Energex to constrain its operational expenditure in 2008-09 and 2009-10 to the same real level as 2007-08.

PBA's recommended operational costs are summarised in Table 23.

Table 23: PBA recommended FRC Operational Costs (\$'000, nominal)

<i>Cost Category</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>
Labour for ongoing FRC activities	143	5,736	5,893	6,056	17,828
IT Maintenance and Support		3,669	3,770	3,874	11,313
IT Maintenance & Support (Stage 2)		245	245	245	735
Load Profiling		240	247	253	740
Total	143	9,890	10,115	10,428	30,615

Note: Totals may not add due to rounding.

The Authority's Position

The Authority accepts the hardware and software licence costs to provide ongoing IT maintenance and support as part of the assessment for Stage 2 of FRC Project Implementation outlined in section 4.3.

Given Energex's clarification that its staffing numbers did not increase beyond 2007-08 and the current initiative to reduce staffing levels identified by PBA, the Authority is satisfied that the cost forecasts by Energex are not very excessive. However, the Authority also accepts PBA's advice regarding the escalation of labour cost components by CPI, rather than the higher rate included in Energex's enterprise agreement, in light of the higher costs compared to those incurred in other jurisdictions or what appear to be normally expected of an efficient provider. On this basis, the Authority has accepted FRC operational costs consistent with the recommendations of PBA, as shown in Table 23.

4.5 Depreciation period

In its Draft Decision, the Authority proposed an asset life of 10 years for Energex's major (SPARQ) IT assets, having regard to their economic life and recent regulatory decisions on similar FRC assets. The Authority considered that Energex's proposed asset life of three to five years was not in line with the asset life already attributed to IT assets in Energex's regulatory asset base.

Energex's Response to the Draft Decision

In response to the Draft Decision, Energex argued that the five year asset life was more appropriate and within the range of depreciation periods proposed by the Authority's consultant PBA. Energex asserted that the proposal to apply a ten year asset life lacked a clear justification and the Authority's reasons for rejecting its proposal had not been clearly stated.

Referring to the transfer of regulatory arrangements to the Australian Energy Regulator (AER), Energex commented that the Authority should make clear, in adopting a 10 year asset life, how Energex would recover the full cost of its asset in net present value terms between regulatory control periods.

Consultant's Assessment

PBA considered that, in general, assets should be depreciated over a period that reflects the economic life of the assets.

PBA acknowledged that ongoing technological changes would mean that few major IT systems were likely to have an asset life similar to that of the existing legacy system FACOM (18 years).

However, PBA suggested that companies rarely adopted new major IT systems every five years as proposed by Energex. This was in part because a period of several years would be required in the planning and implementation phases before the system could be effectively deployed.

On that basis, PBA revised its earlier advice and recommended an asset life of at least seven years for major IT systems. Accordingly, PBA calculated the annuity applying to Energex's major IT systems based on an asset life of seven years.

The Authority's Position

The Authority considers that the relevant depreciation period is that which reflects a reasonable expectation of the useful economic life of the assets that form part of the regulated asset base. The available evidence suggests to the Authority that the useful asset lives for major IT systems of this kind are commonly considered to be between seven and 10 years. Energex's FRC systems represent a major IT investment which should have a life expectancy well beyond five years. In the past, Energex's use of the FACOM system extended over a longer period (18 years) through several upgrades rather than replacement by a completely new IT investment. The Authority has not been convinced that there is any evidence to justify an asset life of five years as proposed by Energex.

Within the seven to 10 year range of asset lives proposed by PBA, the Authority considers it is important for the asset lives attributed to these new systems to be consistent with similar assets currently included in the regulated asset base. The Energex asset base for the 2005 Determination established included a weight average asset life for IT systems of seven years. This weighted average life covered a broad spectrum of IT assets ranging from short lived assets such as desktop PCs and their software through to major IT systems and mainframe hardware. A seven year weighted average life implies there were assets with shorter lives, such as PCs, and assets with longer lives, such as major IT systems.

While the Authority accepts that the actual asset life for the FACOM system (18 years) might not provide a good benchmark for new, similar assets, it is also of the view that the economic life expectancy of the replacement system is will be more a kin to the FACOM system than to that of desktop PCs. The 10 year asset life the Authority used in its Draft Decision is within the bounds suggested by PBA, albeit at the top end, and appears to be a reasonable representation of the likely life of these expensive, major IT assets. The Authority has therefore maintained its view that these assets should be regarded as having a 10 year economic life and the costs depreciated accordingly.

It should be noted that the decision here is not about how much Energex is entitled to recover but rather the time period over which it is reasonable for these costs to be recovered. Energex will recover the net present value of the approved costs regardless of the time period.

Regarding the Energex's comments relating to the transition of regulatory responsibility for electricity distribution networks to the AER, the Authority is not aware of any reason why this should create an impediment to Energex recovering the cost of its investment in these assets. The AER regulates according to a national regulatory framework designed to recognise appropriate investment by distributors. Implementing that national framework is a matter for the AER. There is nothing unique about these particular IT assets in that regard. The majority of assets in Energex's regulatory asset base will have lives that extend across regulatory periods and have remaining investment to be recouped.

4.6 IT Costs from 2005 Final Determination

Energex did not comment on the amount of cost savings to be deducted from its application in recognition of costs previously included in the 2005 final determination. The Authority has therefore retained its previous approach to the exclusion of these costs (\$2.0 million).

4.7 Summary of costs for pass through

The project implementation and operational costs assessed in the previous chapters as being eligible for pass through to customers due to the introduction of FRC are summarised in Table 24.

Table 24: FRC cost eligible for pass-through (\$'000, nominal)

<i>Cost Category</i>	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Final Decision</i>	<i>PBA Total</i>	<i>Energex Total</i>
Project Implementation (Stage 1)								
Project Management and Implementation Costs	392	2,702	1,956			5,050	5,050	5,050
Corporate Communication		47				47	47	227
IT & Business Systems	770	82	6,478	5,986	5,677	18,993	22,944	28,184
Total (Stage 1)	1,162	2,831	8,435	5,986	5,677	24,090	28,042	33,463
Project Implementation (Stage 2)								
Project Management and Implementation Costs			1,253			1,253	1,253	1,253
IT & Business Systems			2,123	3,375	3,205	8,703	10,085	12,244
Total (Stage 2)			3,376	3,375	3,205	9,956	11,338	13,497
Operational Costs								
Labour for ongoing FRC activities		143	5,736	5,893	6,056	17,827	17,827	19,350
IT Maintenance & Support			3,669	3,770	3,874	11,313	11,313	11,334
IT Maintenance & Support (stage 2)			245	245	245	735	735	735
Load Profiling			240	247	253	740	740	740
Total Operational Costs		143	9,890	10,155	10,428	30,615	30,615	32,159
Less IT Costs from 2005 Final Determination	0	0	0	(1,033)	(999)	(2,032)	(2,685)	(2,685)
QCA Total FRC costs	1,162	2,973	21,701	18,483	18,310	62,629	67,309	76,432
Energex Total FRC costs	1,117	2,864	25,040	23,945	23,466	76,432		

Note: Totals may not add due to rounding.

In its Draft Decision, the Authority noted that the costs incurred in 2005-06 and 2006-07 did not meet the materiality threshold established in the 2005 Determination. As noted at the outset;

...amounts of less than 1 % in any one year (whether associated with a cumulative event or not) are unlikely to be sufficiently large to warrant immediate pass-through to customers.

This was the case even with the original amounts proposed by Energex and before any adjustment by the Authority. As a result, the Authority did not consider the amounts incurred in 2005-06 and 2006-07 to be eligible for pass through.

Energex's Response to the Draft Decision

In its response to the Draft Decision, Energex proposed that the Authority assess the materiality of FRC costs based on a different approach.

According to Energex, the materiality of FRC costs should be based on the “magnitude” of the event rather than a year-by-year assessment of the actual annual revenue impact. Energex claimed that its FRC cost pass-through application represented a single large event and the proposed costs were significant. Further, the application of the Authority’s 1% materiality threshold could arbitrarily disallow some expenditures which spread over several years, and allow those costs that were concentrated in one or two years. Energex argued that its proposed approach would be consistent with the intent of the materiality threshold in the 2005 Final Determination and the approach recently proposed by the Australian Energy Regulator (AER).

The Authority's Position

The Authority is of the view that its criteria for assessing materiality were clearly established in its 2005 Determination. These have been applied consistently in all cost pass-through decisions since that date. The same issues regarding the spread of costs across a number of years have arisen in other decisions. The materiality thresholds were set having regard to the likely nature of the events (large and unforeseen) as well as the capacity of the affected organisation to manage such variations for the remaining years of a regulatory period, at the end of which all prudent costs would be reassessed.

The Authority is not convinced by the arguments raised by Energex to change the materiality threshold. Where costs associated with a pass-through event are spread over several years, the financial consequences for the annual returns of the business will be similarly reduced.

The approach to be adopted by the AER is a matter for the AER. However, the Authority notes some decisions made by the AER to date relate to the special circumstances of the (non-binding) guidelines developed as transitional arrangements in NSW and the ACT. .

The Authority reaffirms its decision that the costs relating to 2005-06 and 2006-07 do not meet the materiality threshold for consideration for pass through and have therefore been excluded from further consideration. As a result, the total costs eligible for pass through are as shown in Table 25.

5. REVENUE REQUIREMENT

Based on the assessment outlined in the previous sections, Energex is entitled to pass through costs as shown in Table 25.

Table 25: Total cost pass-through (\$m, nominal)

	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>	<i>NPV</i>
FRC Revenue	0	0	21.7	18.4	18.3	58.5	42.5

In 2007-08 and for 2008-09, the Authority allowed Energex to recover \$15 million of revenue in each year in anticipation of a decision being made on the agreed costs to be passed through to customers due to the introduction of FRC. This was done in order to recognise some level of FRC costs in distribution prices from the commencement of FRC while the assessment of FRC costs was still being conducted.

Having already allowed these two instalments of \$15 million, the balance of the approved cost pass through will have to be accommodated in 2009-10. To maintain the net present value of the pass-through amount Energex is entitled to recover, a further \$30 million of revenue in 2009-10. The revenue requirements are summarised in Table 26.

Table 26: Recovery of total cost pass-through (\$m, nominal)

	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>	<i>NPV</i>
FRC Revenue	15	15	30	60	42.5

6. FINAL DECISION

The Authority's Final Decision is to approve the pass through by Energex during the current regulatory period of costs associated with the introduction of FRC comprising \$30.0 million of project implementation costs (\$20.1 million for Stage 1 and \$10.0 million for Stage 2) and \$30.5 million of operational costs, offset by savings of \$2.0 million.

Based on the parameters used in the 2005 Final Determination, the Authority has determined the total revenue required to achieve that outcome to be \$60 million (in nominal terms) to be passed through during the current regulatory period.

The additional revenue to be targeted by Energex in its prices is shown in Table 27.

Table 27: Target revenue for Energex FRC costs (\$m, nominal)

	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>Total</i>	<i>NPV</i>
FRC Revenue	0	15	15	30	60	42.5