Jemena Electricity Networks (Vic) Ltd

2016-20 Electricity Distribution Price Review Regulatory Proposal

Attachment 11-6

Metering exit fee application

Public

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ABBREVIATIONS

ACS	Alternative Control Service
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure
CROIC	Cost Recovery Order-in-council
JEN	Jemena Electricity Networks (Vic) Ltd
LNSP	Local Network Service Provider
MP	Meter Provider
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules
WACC	Weighted Average Cost of Capital
WDV	Written Down Value

OVERVIEW

1. The current advanced metering infrastructure (**AMI**) Cost Recovery Order-in-Council (**CROIC**) provides for the Australian Energy Regulator (**AER**) to determine an exit fee (in accordance with the requirements set out in the CROIC) that would be paid by a retailer to the distributor where:

   > *that retailer becomes the responsible person in respect of a metering installation for a customer with annual electricity consumption of 160MWh or less which, immediately prior to that time, included:*
   >
   > - *a revenue meter that is a remotely read interval meter which complies with the specifications[1] and that has been previously installed by a distributor*
   > - *the responsible person in respect of that metering installation immediately prior to that time was the distributor.*

2. Jemena Electricity Networks (Vic) Ltd (**JEN**) provides this exit fee application to the AER in accordance with the CROIC.

3. This exit fee application:

   - Outlines JEN's understanding of the regulatory requirements contained in the CROIC relating to the derivation of its meter exit fees
   - Compares the CROIC's requirements with the requirements of the broader regulatory framework
   - Describes the model that JEN has used to derive its proposed exit fees
   - Describes the other non-meter costs associated with removing a metering installation that JEN has reflected in its exit fee
   - Summarises JEN's proposed exit fees for the forthcoming regulatory control period

[1] As defined in the CROIC

1. REQUIREMENTS OF THE CROIC

4. Clause 7.1 of the CROIC states that:[2]

> *An exit fee, determined by the Commission in accordance with this clause must (except as otherwise agreed by the relevant distributor) be paid by a retailer to the distributor where:*
>
> *(a) that retailer becomes the responsible person in respect of a metering installation for a customer with annual electricity consumption of 160MWh or less which, immediately prior to that time, included a revenue meter that is a remotely read interval meter which complies with the Specifications and that has been previously installed by a distributor and*
>
> *(b) the responsible person in respect of that metering installation immediately prior to that time was the distributor.*

5. Clause 7.2 of the CROIC states that:[3]

> *The Commission must determine an exit fee payable to each distributor as referred to in clause 7.1 in such a way that the exit fee enables the distributor to recover in a lump sum which is payable upon the change in responsible person referred to in clause 7.1:*
>
> *(a) the reasonable and efficient costs of removing the metering installation for which the distributor was the responsible person; and*
>
> *(b) the unavoidable costs (fixed and variable) that a prudent distributor has incurred or would incur as a result of the metering installation for which it was the responsible person being removed prior to the expiry of the life of that metering installation including:*
>
> *(i) the written down value of the meter (assuming that depreciation is calculated on a straight line basis);*
>
> *(ii) the proportion referable to that metering installation of the written down value of commissioned telecommunications and information technology systems; and*
>
> *(iii) a reasonable rate of return on the written down values determined under paragraphs (i) and (ii), calculated using the applicable WACC.*

6. Rule 11.17.6 states that:[4]

> *(a) Metering services that are regulated under the AMI Order in Council are not, while so regulated, subject to regulation under a distribution determination but, on cessation of regulation under the AMI Order in Council, are liable to regulation under a distribution determination.*
>
> *(b) However, for a relevant regulatory control period, services to which exit fees under clause 7, or restoration fees under clause 8, of the AMI Order in Council applied are to be classified as alternative control services and are to be regulated by the AER on the same basis as applied under the AMI Order in Council.*

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2 Victorian Government Gazette No. G51 22 December 2011 – Amend CROIC ensuring cost efficiency

3 Ibid

4 NER Chapter 11 Savings and Transitional Rules

(c) For paragraph (b), a relevant regulatory control period is a regulatory control period commencing on or after 1 January 2016 and before 1 January 2021.'

7. Having regard to the above requirements, JEN's interpretation of the CROIC is that it:

- clearly provides for JEN to levy an exit fee on **any** remotely read interval meter (that is churned) that it has installed at the premises of a customer who consumes under 160MWh per annum. This means that the exit fee may include future expenditure (that the AER accepts as being prudent and efficient as part of its broader assessment of this regulatory proposal) that JEN will be required to spend on purchasing and installing new remotely read interval meters for customers consuming under 160MWh, or alternatively, in order to support the on-going operation of existing remotely read interval meters.
- provides for the:
  - recovery of the written down value of that meter and proportion of supporting communication & IT systems **as part of the exit fee**
  - reasonable and efficient costs of removing the metering installation **as part of the exit fee**.
- applies throughout the entire forthcoming regulatory control period, which, taken together, requires that:
  - the AER must make an exit fee determination that is ***consistent with the principles outlined in the CROIC***
  - this determination will apply to **all remotely read interval meters** where a retailer becomes the responsible person in respect of that metering installation over the **entire forthcoming regulatory control period**.

2. COMPARING THE REQUIREMENTS OF THE CROIC TO THE BROADER REGULATORY FRAMEWORK

8. The method used to determine the exit fee charged by the incumbent metering provider has implications for the likely breadth and scope of competition in metering, as well as the risks borne by different parties operating in the energy market, including, in particular, electricity distribution businesses.

9. Given the importance of the exit fee, JEN considers it worthwhile to explore whether or not the method prescribed in the CROIC would differ materially, if it were to be developed under the broader regulatory framework, notwithstanding the fact that the AER is constrained in its review of JEN's proposed exit fees to assessing whether or not they comply with the CROIC requirements. The broader regulatory framework includes, but is not limited to the:

- Principles outlined in the National Electricity Objective (**NEO**),
- Revenue and pricing principles (National Electricity Law (**NEL**), section 7A), and
- Distribution pricing rules (National Electricity Rules (**NER**), 6.18).

10. Generally, the principles outlined in the NEL and the NER reflect economic concepts. For example, the NEO, which states that the:

> *"the objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
>
> *(b) the reliability, safety and security of the national electricity system",*

reflects the three components of economic efficiency:

- **Productive Efficiency:** ('promote efficient investment in') Tariffs for regulated services should, in totality, only recover the 'efficient costs' of investing in regulated services.
- **Allocative Efficiency:** ('efficient….use of, electricity services') Tariffs for regulated services should be reflective of the forward looking costs of providing those services (cost reflective), so that consumption only occurs where the benefit to the consumer outweighs the cost to the society of providing those services; and
- **Dynamic Efficiency:** ('for the long term interests of consumers of electricity with respect to…price') Regulated businesses should be incentivised to make efficiency investments in the long-term, including seeking out efficiency gains over time and improving performance where the benefits exceed the costs, such that efficiency is promoted in the long-term.

11. The following table highlights the issues that JEN considers would be fundamental to the development of an exit fee under the broader regulatory framework.

Table 1: Summary of the issues relevant to the design of the exit fee

Issue impacted by the design of the exit fee	Description
Influences whether competition will lead to the efficient allocation of resources (allocative efficiency)	The exit fee is the key **price signal** that will guide investment in the metering market. This price signal will materially influence which meters will be changed over (churned) and which meters will not be churned upon the opening up of the metering market to competition. If the exit fee is set below efficient levels (i.e., it does not reflect the economic cost to the incumbent distribution business stemming from the removal of that meter), everything else being equal: • an AMI meter meeting the current Victorian specification may be churned, even though the private benefits accruing from that transaction may be less than the economic cost to society from that transaction occurring; and • too many AMI meters will be churned, relative to efficient levels, thus leading to inefficient expenditure on installing new meters. Conversely, if the exit fee is set above efficient levels (too high), too few meters will be churned (i.e., some meters will not be churned, even though the private benefits accruing from that transaction would have exceeded the economic cost to society stemming from that transaction occurring). The key, therefore, is to consider: (a) what the economic benefits and costs of any meter changeover are, and (b) ensure that the criteria used to guide the development of any exit fee allows for the value of these benefits and costs to be included in the exit fee. For completeness, the benefits and costs can in theory extend beyond the direct value of the meter itself, for example, if the changeover of a meter deprives a distribution business (or makes it more expensive for them to obtain) a certain network benefit that would have otherwise been facilitated as a result of the on-going retention of that AMI meter in-situ, then that is a cost to the electricity market of changing over that meter, which should in turn be reflected in the exit fee price signal.
Impacts on the long term incentive for businesses to make investments in the metering market, and the energy market more broadly (dynamic efficiency)	If the method used to derive the exit fee leads to an inappropriate allocation of risk, for example, the transfer of technological or market risk to the Victorian distribution businesses for decisions that were effectively outside of their control (as a result of the mandated nature of the AMI program and functional and service level specifications), then this inappropriate allocation of risk is likely to impact on dynamic efficiency.
Impacts on the broader market for electricity network services (allocative efficiency)	If the exit fee method prescribes that the recovery of the exit fee should be borne by a party other than the new metering coordinator, then this could impact upon the efficiency of the market from which those costs are recovered (not just the metering market itself). For example, if the recovery of the exit fee in Victoria were to occur via an increase in distribution ('DUoS') tariffs, then this could in theory impact upon the efficiency of distribution services, as the DUoS price signal (inclusive of the exit fee) will influence whether existing customers choose to maintain their existing electricity connection and usage levels, or revert to an alternative source of energy (e.g., go off-grid), or for that matter, whether new customers will choose to connect to a distribution business' network.

12. Having regard to the above, JEN is of the opinion that the requirements of the CROIC will lead to the development of exit fees that are generally consistent with the requirements of the broader regulatory framework—in particular the NEO. Firstly, the CROIC provides for the written down value (**WDV**) (as a proxy for the remaining economic value) of the meter to be recovered via the exit fee, not smeared across the broader customer base. This is clearly consistent with the NEO, as it allows the remaining economic value of the AMI

meter to be signalled through the exit fee price to prospective entrants into the metering market.[5] That said, the CROIC does not prescribe the level of granularity at which the WDV calculation should be undertaken (e.g., whether it should be a single WDV that covers all remotely read interval meters that comply with the Victorian AMI specifications; whether separate WDVs should be calculated for each category of meter; whether separate WDVs should be calculated for each category of meter, by the year of installation).

13. JEN has chosen to calculate WDVs by meter category, but not by installation year. JEN's rationale for adopting this approach is as follows:

- Disaggregating the exit fee by the category of meter will provide a more accurate price signal to the market, relative to if one (average) exit fee was to be calculated based on one (average) WDV calculation. Everything else being equal, this should improve allocative efficiency (and therefore, be consistent with the NEO, as the price signals seen by potential entrants into the metering market will be much more cost reflective than they otherwise would be). JEN is also of the view that there is unlikely to be any (a) material increase in the administrative costs of calculating or communicating this more granular exit fee, nor (b) adverse effect on potential entrants in the market as a result of them not being able to understand or respond to this slightly more disaggregated price signal. In relation to the latter, JEN is of the view that most customers who are considering changing their metering coordinator are likely to be able to provide enough information to their prospective metering coordinator to allow them to ascertain what type of meter that customer currently has, and therefore, the relevant exit fee that will be applied if that meter is churned

- The decision to not disaggregate the exit fee price signal by installation year was made as this was considered likely to increase the costs of developing such a fee, and more importantly, the costs of administering such a fee as neither the customer nor a prospective party entering into the metering market is likely to know what year the meter being churned was installed. The uncertainty that this creates may limit activity in the broader metering market, therefore, JEN considers it more efficient to derive a weighted average for the exit fee across the installation years (but as stated previously, not meter category).

14. In addition to the WDV, the CROIC provides for the '*reasonable and efficient costs of removing the metering installation*' to also be recovered via the exit fee. This legitimate economic cost will be borne by the incumbent distribution business as a result of their remotely read interval meter churning. Therefore this rightly needs to be signalled to the market to ensure that only efficient levels of AMI meter churn occur.

2.1 2016-20 ELECTRICITY DISTRIBUTION PRICE REVIEW

15. As well as submitting this exit fee application in accordance with the CROIC, we are also submitting it as a part of the 2016-20 regulatory proposals.

2.1.1 2016-20 AER'S FRAMEWORK AND APPROACH PAPER

16. The AER's Victorian framework and approach paper contemplates the existence of a metering exit fee and it's classification as an Alternative Control Service (**ACS**) throughout the 2016-20 regulatory control period.[6] The paper also recognised the exit fee would be developed in accordance with the CROIC requirements (p. 53). Therefore this application is being made for the 2016 period regulatory control period and also in accordance with the CROIC requirement (Cl. 3.2).

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5 It also avoids distorting the market for distribution services (which would occur if this value was recovered via DUoS tariffs) or the inappropriate allocation of risk to the detriment of economic efficiency (which would occur if this value was not able to be recovered by Victorian distribution businesses at all).

6 AER, Final Framework and approach for the Victorian Electricity Distributors, Regulatory control period commencing 1 January 2016,25 October 2014, p. 53.

17. The impact is that many of the modelling assumptions will be aligned between the two proposals, including:

    a) Asset lives

    b) Weighted Average Cost of Capital (**WACC**)

    c) Meter testing charge fees

    d) Escalation rates

2.2 NATIONAL METERING COMPETITION

18. Work by the Australian Energy Market Commission (**AEMC**) on introducing national metering competition has culminated in a draft rule change released on 26 March, 2015.[7] This draft rule change and the working industry model—that will include changes to AEMO's MSATS and B2B procedures—are yet to be finalised. It is not yet clear what impact this change will have on JEN's metering services, including metering exit services.

[7] AEMC, Draft Rule Determination, National Electricity Amendment (Expanding competition in metering and related services) Rule 2015, National Energy Retail Amendment (Expanding competition in metering and related services) Rule 2015, Rule Proponent COAG Energy Council, 26 Mar 2015

3. DESCRIPTION OF THE MODEL JEN HAS USED TO DERIVE ITS PROPOSED EXIT FEES

19. In simple terms, the model that JEN has used to calculate its proposed exit fee:

- requires historical and forecast capital expenditure (by meter category, and for IT and communications) to be inputted in nominal terms
- converts these nominal expenditures into end 2015 dollars based on inputted escalation factors that are consistent with those that have been used throughout other parts of this regulatory proposal
- depreciates this end of 2015 dollar capital expenditure using one of two methods:
  - the method that underpins the AMI Charges Model (which, sees a ½ year of depreciation in the first year, and a ½ year of depreciation in the final year)
  - the method that underpins the AER's building block model (which provides for no depreciation in the first year, but for capital expenditure to be inflated by a half year WACC, with this inflated amount depreciated over the useful life of the asset)
- calculates the average WDV in each year, by meter category, based on the average of the start and end year WDVs for that meter category, with the end year WDV figure based on:
  - the starting WDV for that year (in end 2015 dollars)
  - *plus* the capital expenditure incurred in that year (in end 2015 dollars, inflated by a half year WACC if that expenditure is forecast to occur from 2016 onwards)
  - *less* one of the two depreciation methodologies outlined above (with the decision dependent on whether or not the asset was constructed prior to 2016)
- *divides* the average WDV of each meter category in each year, by the average number of meters in that meter category that were (or are expected to be) in situ in that year
- *adds* the average WDV of IT and communications based on the same method as outlined above (except that the denominator in the calculation is the average number of meters in total that were, or are expected to be, in situ in that year), and
- *adds* in other costs such as, but not limited to, administration and removal costs, and tax costs, to determine the final exit fee per meter (by meter category).

20. The key inputs into the model are therefore:

- **Historical capital expenditure (by meter category**): The total dollar amount is based on the AMI charges that have been previously approved by the AER. However, these costs have been split into meter categories for the purposes of modelling the exit fee, as opposed to the broader capital expenditure category of 'remotely read interval meter' that is used as part of the AMI charges application process.
- **Forecast capital expenditure (by meter category):** This is based on the forecast costs included in other parts of this regulatory proposal that have been allocated to the provision of metering services to customers less than 160MWh. Again, these costs have been split out by meter category.
- **Depreciation lives:** These have been sourced from the AMI charges models, but generally, the capital and installation costs of the meters have been depreciated over 15 years, whilst the communications and IT costs have been depreciated over 7 years.

- **Real Vanilla WACC:** This figure is 4.55%, consistent with the parameters and method described in chapter 9 of our main 2016 regulatory proposal.
- **Escalation factors:** These are consistent with the escalation rates outlined in chapter 8 of our main 2016 regulatory proposal.
- **Tax treatment:** Whilst theoretically, the levying of an exit fee may lead to a distribution business incurring a tax liability, for the purposes of calculating its exit fee, JEN has not included any allowance for tax, as it is forecasting to have carry-forward tax losses for its metering services over the forthcoming regulatory control period.
- Other costs associated with the removal of the metering installation: These are discussed in more detail in the following section.

4. OTHER COSTS ASSOCIATED WITH THE REMOVAL OF THE METERING INSTALLATION

21. As has been stated previously, the CROIC entitles distribution businesses to reflect in the exit fee, the

> *'reasonable and efficient costs of removing the metering installation for which the distributor was the responsible person'.*

22. To this end, JEN has developed a possible process for removing the metering installation in the absence of a firm industry working model (see section A1). It has then estimated the incremental cost that it will incur as a result of having to complete this process.

23. The table outlined in section A2 identifies the key steps in this process, and the basis for costing up this process. This is also included in detail in Attachment 11-7.

24. Finally, JEN has also included an allocation for costs relating to communications infill costs to maintain the integrity of the mesh network and ensure that JEN can maintain its service level obligations as these are reasonable and efficient costs of removing the metering installation.

5. SUMMARY OF JEN'S PROPOSED EXIT FEES

25. The following table summarises JEN's proposed exit fees for each of its relevant meter categories, for each year of the forthcoming regulatory control period.

Table 2: Proposed exit fees (per meter)

Meter Category	2016	2017	2018	2019	2020
Single Phase	612.37	650.23	604.42	571.52	541.95
Single Phase, Two Element	613.83	649.35	600.01	565.49	539.34
Three Phase DC	633.46	680.79	637.20	606.62	579.70
Three Phase CT	636.43	681.77	634.63	599.05	573.01

Source: JEN Exit Fees Summary Model – Attachment 11-7

Attachment A
Regulated Metering Retirement Process

Jemena

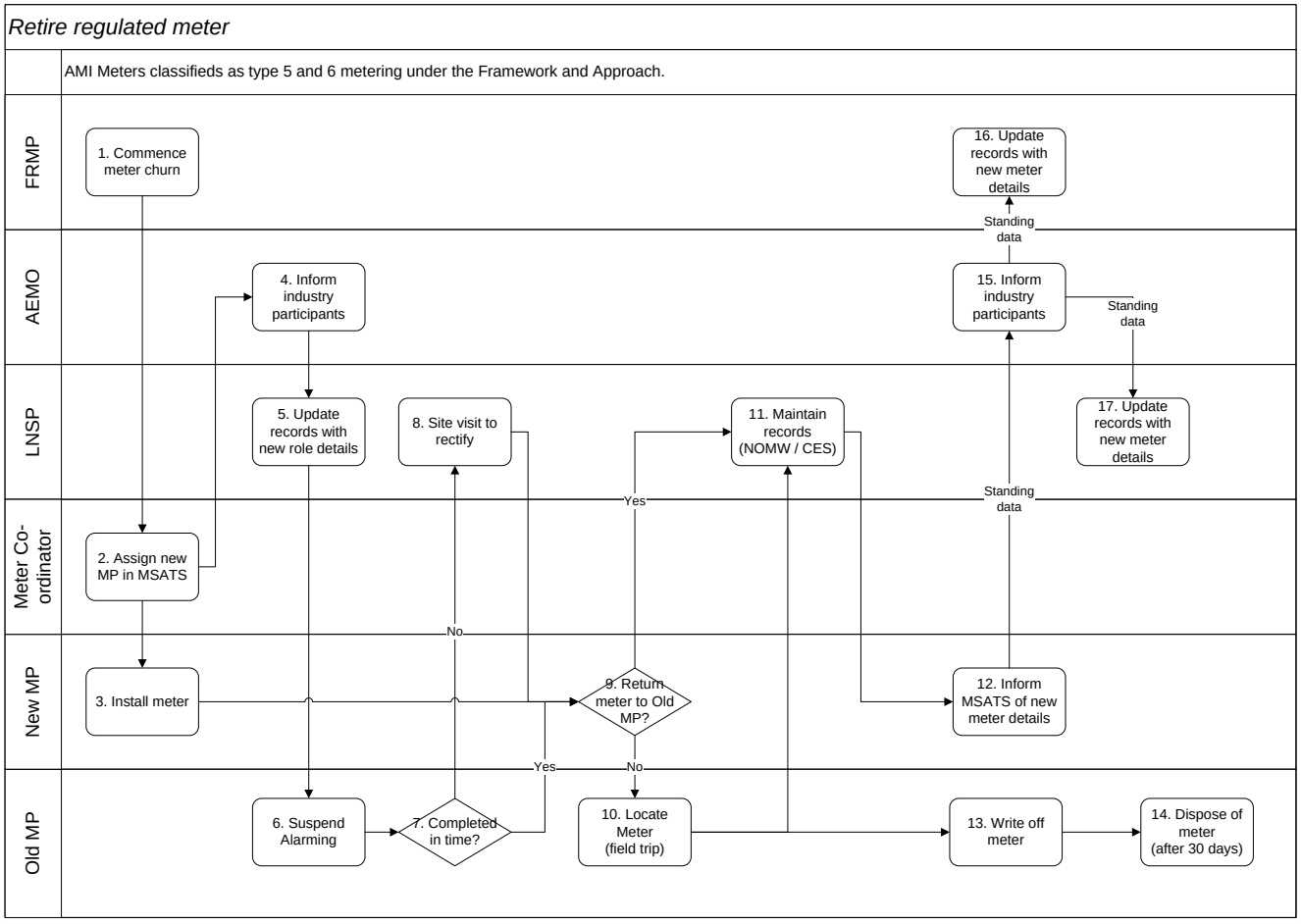
A1. PROCESS MODEL

26. The below process flow is a best estimate of possible actions required to action the retirement of an AMI regulated meter. Each step involves cost which—for JEN—relate to the:

    1. Local Network Service Provider (**LNSP**), and
    2. Old Meter Provider (**MP**) roles.

27. The costs associated with the actions for these roles is outlined in section A2.

Figure 1 – Possible industry process for retiring a regulated AMI meter



A2. COSTING MODEL PROCESS STEPS

28. Each step in the industry process incurs a cost to execute the activity, the method for costing of each of these activities is summarised in Table 3, and the detailed costings are modelled in Attachment 11-7.

Table 3: Process for removing the metering installation

Step in process	Description	Costing methodology
Step 5	Update records with new role details	Automated
Step 8	Site visit	Step 7 @ 20% of the time, priced at a meter test fee
Step 10	Site visit	Step 9 @ 20% of the time, priced at a meter test fee
Step 11	Receive the NOMW from the MPB	
	• Analyse the paperwork and make sure NMI/Address/removed meter match up	Apply a back office labour rate
	• Create the 900 series meter in CIS+ Character base	Apply a back office labour rate
	• Remove the meter from SAP	Apply a back office labour rate
	• Transition the NMI from SAP to CIS+	Apply a back office labour rate
	• Unblock SDR block via CIS+ Character Base	Apply a back office labour rate
	• Remove the Jemena meter from CIS+	Apply a back office labour rate
	• Duplicate a new Service Point	Apply a back office labour rate
	• Install the new MPB meter into CIS+	Apply a back office labour rate
	• Create new USA (Automatically happens with the SIO to install the new meter)	Automated
	• Add MDP to USA	Apply a back office labour rate
	• Add account notes	Apply a back office labour rate
Step 13	Write off meter in the system	Apply a back office labour rate
Step 14	Decommission and dispose	Apply a back office labour rate
	• Extract the data	Apply an engineering labour rate
	• Provide Data to JEN	Apply an engineering labour rate
	• Upload data into SAP	Apply an engineering labour rate
	• Archive SAP	Apply an engineering labour rate