CLEAN DEVELOPMENT MECHANISM
PROPOSED NEW METHODOLOGY: BASELINE (CDM-NMB)
Version 01 - in effect as of: 1 July 2004

CONTENTS

SECTION A. Identification of methodology

A.1. Proposed methodology title:

Improved Efficiency of Electrical Power System Generation through Advanced SCADA Control Systems and Related Energy Management Protocol

A.2. List of category(ies) of project activity to which the methodology may apply:

#3- Energy Efficiency

A.3. Conditions under which the methodology is applicable to CDM project activities:

The methodology applies:

- To electrical power systems that lack advanced SCADA and related energy management software controls on their power distribution network
- To electrical power systems that utilize fossil fuels in at least part of their generation capacity
- Only efficiency improvements in generation units that were online as of the baseline year
- Only to those power generation units that have not undergone upgrades that would significantly change kcal/kWh efficiency levels during the duration of the project.
- Only where accurate data is available to measure the efficiency improvements

A.4. What are the potential strengths and weaknesses of this proposed new methodology?

Strengths
The methodology is simple. It provides a clear transparent overview of the efficiency gains due to improved electrical system operation as a result of the enhanced data acquisition and controls provided by modern SCADA systems. The methodology is set up to ensure any discrepancies in emissions reduction accuracy err on the conservative side. It also has a heavy reliance on monitoring using very accurate data.

Weaknesses
Because of the complexity of electrical power systems, the methodology cannot interpret the likely savings of the SCADA system on new power generation capacity added during the course of the project. There will also be better data after the SCADA system is operational than before, so the monitoring data will typically be of better quality than the baseline data.

SECTION B. Overall summary description:

Dispatch systems are responsible for determining how the demand on a given electricity grid is going to be met by the various generation units connected to the grid. Given that most grids operate with a wide variety of plants with different generation methods, capacities and efficiencies, the overall efficiency of operation of the entire system will be determined by how the grid's dispatch system operates. Optimizing an electricity grid's dispatch system will allow

the generating units to operate under closer to optimal conditions thereby increasing their efficiency and reducing input consumption per kWh produced. In the case of thermal power plants the reduction of inputs can be directly translated into fossil fuels saved per kWh produced. This methodology will calculate the efficiency gains and the resulting energy savings achieved at each generation unit by better managing the dispatch system.

In a very simplistic example with four generating units of equal capacity, if the dispatch system can allow the two most efficient generating units to operate at 100% capacity rather than having four generating units operating at 50% capacity the same kWh will likely be produced using significantly less fuel. Depending on the carbon intensity of the saved fuel, this will result in CO2 emission reductions.

Supervisory Control and Data Acquisition systems (SCADA) systems and associated energy management software when utilized in conjunction with a power dispatch system can greatly optimize the operation of the entire system. The data collection and the real time control systems that are typical of modern SCADA systems can allow operators to determine the most efficient combination of generation options under every operation condition. Sask Power of Canada was able to increase system-wide capacity almost 10 times and reduce losses by just upgrading its existing SCADA system to get better real time data to optimize the operations of its thermal generation mix.

SECTION C. Choice of and justification as to why one of the baseline approaches listed in paragraph 48 of CDM modalities and procedures is considered to be the most appropriate:

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C.1. General baseline approach:

X☐ Existing actual or historical emissions, as applicable;

☐ Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment;

☐ The average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category.

C.2. Justification of why the approach chosen in C.1 above is considered the most appropriate:

The project developers will be able to accurately calculate what the emissions would have been if the project had not occurred and compare the emissions to very accurate actual emissions data. The data to make this approach work will be readily available through the SCADA system.

SECTION D. Explanation and justification of the proposed new baseline methodology:

D.1. Explanation of how the methodology determines the baseline scenario (that is, indicate the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases (GHG) that would occur in the absence of the proposed project activity):

How the methodology determines the baseline scenario:

First, the project developer identifies all the reasonable potential alternative scenarios that could provide a similar outcome as the proposed project. The project developer will then use the barriers section of the additionality tool to analyze each of these alternatives. The alternatives for these types of projects would likely include:

- Alternative #1: Instead of utilizing the efficiency option, additional fossil-fuel generation capacity would be built to meet demand. The project developer would need to show this additional capacity would not be met by zero-emission electricity (although renewable sources are usually not on the margin).
- Alternative #2: Undertaking the project anyway without CDM involvement
- Alternative #3: The continuation of the current situation with continued inefficiency in power dispatch and no new capacity.
- Alternative #4: Importing additional power from outside the existing grid

The project developer would assess the likelihood of these alternatives coming to pass using the same barriers test as outlined in the Additionality Tool. The project developer must explain the barriers that would prevent each of these alternatives from being the baseline scenario. Many of these barriers may be the same barriers preventing the project from moving forward in the absence of CDM.

In the case where barriers exist to all the alternatives, the project developer must explain and provide supporting evidence to demonstrate that the barriers to the alternative chosen as the baseline are clearly less likely to prevent this alternative than the barriers affecting the other alternatives. It may be possible that even if two alternatives are equally possible, they proposed methodology will be equally valid. For example, if the project developer determines that likely Alternative #1 and #3 mentioned above are equally possible, as long as new generation is excluded from the project boundaries (which the proposed methodology requires) it would not impact the calculation of the emission reductions.

D.2. Criteria used in developing the proposed baseline methodology:

The methodology has been designed to be simple, transparent, replicable and comprehensive. It relies on the pre-project rate of efficiency of electricity delivered at a given level to determine the post project improvement.

D.3. Explanation of how, through the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario (section B.3 of the CDM-PDD):

The project will be demonstrated as additional using a version of the EB's additionality tool that has been enhanced with further details on how to implement the tool considering the specific project type covered by this methodology. The sections in which details have been added are represented below, while the sections that remain unmodified from the tool are not included as per instructions in the Methodology Panel report from January 26-28, 2005.

Step 0. Preliminary screening based on the starting date of the project activity

(As per EB Additionality Tool)

Step 1. Identification of alternatives to the project activity consistent with current laws and regulations

(As per EB Additionality Tool)

Step 2. Investment analysis

For this type of project, the project developer can assess whether the additional output of electricity would somehow not translate into enough additional revenues to make the project go forward without CERs. In this case, the project would not provide an adequate return on investment either as a stand-alone investment or compared to other similar types of investment. For example, if the electricity generated by a state-owned utility is heavily subsidized, the cost of implementing the project may not be worth the return on investment. If the additional power brings in a very low price or the additional revenues go to another governmental agency which controls the electricity sector, there may be no incentive to increase output. If these and other disincentives to generate additional power exist, then the project developer can follow the Additionality Test tool to prove that the project is not economically-viable without the CER revenue. Otherwise, the developer can move to Step 3.

The project developer can determine whether the proposed project activity is economically or financially less attractive than other alternatives without the revenue from the sale of certified emission reductions (CERs). To conduct the investment analysis, the following sub-steps can be used:

(The remainder of the section is as written in the EB's Additionality Tool beginning with "***Sub-step 2a. Determine appropriate analysis method"***)

Step 3. Barrier analysis

The project developer should follow the sub steps below, as per the Additionality Test tool. If this step is used, determine whether the proposed project activity faces barriers that:
(a) Prevent the implementation of this type of proposed project activity; and
(b) Do not prevent the implementation of at least one of the alternatives.

These barriers would likely include, but not be limited to:

- Investment Barriers: Although cheaper than building a new power plant, SCADA optimization is still an expensive undertaking. Would the utility be

able to finance it? Would outside financiers be willing to lend for a project that is so unique? Are there other investment priorities that will take precedent? The project developer can look at all of these factors to show a substantial investment barrier. Evidence should be submitted to the DOE that could include: analysis of the financial health of the power company (financial statements, records on subsidized electricity prices, nonpayment rates, etc.), an inability to raise funds on the capital markets, inability to attract investors. In addition, the project developer could provide evidence that this type of project is not a priority for the utility, perhaps through records showing lists of priority investments and by comparing against the company's minimum investment criteria.

- Familiarity: Usage of SCADA optimization technology is not ubiquitous across all electricity systems. The key problem this presents is that utility managers are unfamiliar with the concept of generating electricity more efficiently using a SCADA system and cannot be sure if it will work until after it is installed and the investment has been made. Turing over management control of operations to an unfamiliar system is likely to be perceived as risky. As a result, many operators are unwilling to take the investment and management risk by installing a SCADA control system. The project developer should show that the lack of familiarity and the fact that this may be a first-of-its-kind project hinders the ability to move forward. Documentation from the common practice test cited below should be submitted to the DOE upon project validation.

- Technological/Training: The implementation of this technology requires extensive advanced training and advanced computer equipment, which may or may not be available at the selected utility. This may be especially true in utilities that have a hard time hiring and retaining highly skilled workers. CER revenue may be required to help retain top level operators required to make this work.

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed project activity:

1. Establish that there are barriers that would prevent the implementation of the type of proposed project activity from being carried out if the project activity was not registered as a CDM activity. Such barriers may include, among others:
Investment barriers, other than the economic/financial barriers in Step 2 above, *inter alia*:
- Debt funding is not available for this type of innovative project activities.
- No access to international capital markets due to real or perceived risks associated with domestic or foreign direct investment in the country where the project activity is to be implemented.
-Subsidies exist that inhibit investments in energy efficiency
- electric utilities that are unable to recover their costs could be prevented from making major investments (lack of access to credit due to poor revenues, management inability to dedicate resources, etc.)

Technological barriers, *inter alia*:
- Skilled and/or properly trained labour to operate and maintain the technology is not available and no education/training institution in the host country provides the needed skill, leading to equipment disrepair and malfunctioning;
- Lack of infrastructure for implementation of the technology.

Barriers due to prevailing practice, *inter alia*:
- The project activity is the "first of its kind": No project activity of this type is currently operational in the host country or region.

The identified barriers are only sufficient grounds for demonstration of additionality if they would prevent potential project proponents from carrying out the proposed project without the benefit of CDM.

2. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers.

Anecdotal evidence can be included, but alone is not sufficient proof of barriers. The type of evidence to be provided may include:

(a) Relevant legislation, regulatory information or industry norms;
(b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc;
(c) Relevant statistical data from national or international statistics;
(d) Documentation of relevant market data (e.g. market prices, tariffs, rules);
(e) Written documentation from the company or institution developing or implementing the CDM project activity or the CDM project developer, such as minutes from Board meetings, correspondence, feasibility studies, financial or budgetary information, etc;
(f) Documents prepared by the project developer, contractors or project partners in the context of the proposed project activity or similar previous project implementations;
(g) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centers), industry associations and others.

Sub-step 3 b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity):

3. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, explain how the identified barriers are not preventing the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration. At least one viable alternative shall be identified.

If both Sub-steps 3a – 3b are satisfied, proceed to Step 4 (Common practice analysis)

If one of the Sub-steps 3a – 3b is not satisfied, the project activity is not additional.

Step 4. Common practice analysis

As mentioned above, the penetration rate for this technology is low in the developing world. The project developer should interview utilities in the selected country or region and with the manufacturers of this application of SCADA technology to show that this project is not common

practice. If the project has not been implemented in the country (or region for large countries), if the relatively few companies that design this technology have done no business in this country, and if the utility managers are unfamiliar with this type of project, it can be assumed that the common-practice test has been met. As per the tool, if the SCADA system optimization has taken place elsewhere in the country or region, the project developer would need to show the extenuating circumstances that made that project happen and how it would not be replicable. The documentation provided to the DOE should include letters from power companies, SCADA developers, etc and other official documentation indicating the lack of SCADA systems in the power sector of the selected country.

This test is a credibility check to complement the investment analysis (Step 2) or barrier analysis (Step 3). Identify and discuss the existing common practice through the following sub-steps:

Sub-step 4a. Analyze other activities similar to the proposed project activity:

1. Provide an analysis of any other activities implemented previously or currently underway which are similar to the proposed project activity. Projects are considered similar if they are in the same
country/region and/or rely on a broadly similar technology, are of a similar scale, offer similar outcomes, and take place in a comparable environment with respect to regulatory framework, investment climate, access to technology, access to financing, etc. Other CDM project activities are not to be included in this analysis. Provide quantitative information where relevant.

Sub-step 4b. Discuss any similar options that are occurring:

2. If similar activities are widely observed and commonly carried out, it calls into question the claim that the proposed project activity is financially unattractive (as contended in Step 2) or faces barriers (as contended in Step 3). Therefore, if similar activities are identified above, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially attractive (e.g., subsidies or other financial flows) or did not face the barriers to which the proposed project activity is subject.

3. Essential distinctions may include a serious change in circumstances under which the proposed
CDM project activity will be implemented when compared to circumstances under which similar projects where carried out. For example, new barriers may have arisen, or promotional policies may have ended, leading to a situation in which the proposed CDM project activity would not be implemented without the incentive provided by the CDM. The change must be fundamental and verifiable.

If Sub-steps 4a and 4b are satisfied, i.e. similar activities cannot be observed or similar activities are observed, but essential distinctions between the project activity and similar activities can reasonably be explained, please go to step 5 (Impact of CDM registration).

If Sub-steps 4a and 4b are not satisfied, i.e. similar activities can be observed and essential distinctions between the project activity and similar activities

cannot reasonably be explained, the proposed CDM project activity is not additional.

Step 5. Impact of CDM registration
(As per EB Additionality Tool)

D.4. How national and/or sectoral policies and circumstances can been taken into account by the methodology:

In cases where applicable actively-enforced laws mandating the use of advanced dispatch and control systems technology for utilities are in place, the project will not be considered additional. The project developer will provide to the DOE documentation of the status of the regulatory situation in the selected country concerning dispatch, if any.

D.5. Project boundary (gases and sources included, physical delineation):

The project boundary is the sum of all of the thermal generation units using fossil fuel to produce electricity in place before the commencement of the project and the transmission system used to deliver the electricity that are optimized by the SCADA.

D.6. Elaborate and justify formulae/algorithms used to determine the baseline scenario. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates):

The project is designed to improve the system-wide efficiency of the electricity system by better utilizing the generation capacity and reducing line losses through better management data and tools. The Supervisory Control and Data Acquisition (SCADA) system will allow the cumulative kcal per unit of electricity generated and delivered through the transmission system up to the distribution system to decrease. This will happen because load is being better managed to maximize the efficiency of generation from all the power plants in the grid; in addition, the SCADA system will allow the operator to maintain a better voltage profile within the transmission system reducing the I^2R losses. The efficiency factor of total kWh delivered to metered distribution points per total kcal expended (kcal/kWh) is used because it captures (a) improvements in efficiency at both the generation point and (b) reduction in lines losses resulting from the SCADA system. This efficiency ratio will be measured at each level kWh of delivery in the baseline year so that it can be compared to data in the project year at the same point of delivery.

For example, in the baseline year .3 million kcal/MWh are required to deliver 1000 MWh to the terminal points of the transmission system. If in the post-project year to deliver the same amount of electricity to the end of the transmission system only takes .291million kcal/MWh, it will be clear there has been a three percent efficiency improvement in the system's ability to deliver 1000MWh. This improvement will result from some combination of reduced line losses and increased generation efficiency due to the SCADA system.

In order to ensure the accuracy of the emission reductions, the baseline will be recalculated on an annual basis to:

- account for changes in the CO_2 content of the fuel used to produce the electricity in a given year (for example new sources of natural gas might displace fuel oil used more heavily in the baseline year); and
- to ensure that the calculated baseline is representing as best as possible what would have happened in absence of the CDM project. In order to achieve this, both demand and delivery efficiency will be measured on an hourly basis in both the baseline and project years to allow the project developer to compare the thermal-system efficiency at a given amount of kWh delivered to the transmission system from the baseline year with the improved efficiency of the system at the same demand point in the project year.

Renewable loads and new thermal generation brought on after the initiation of the project will not be included in order to isolate the direct effect of the project on fossil fuel use and be extremely conservative. In order to isolate the fossil fuel production from other sources, the project developer will define the delivered amount used in this calculation by taking the total electricity delivered measured at the end points of the transmission system and subtract any non-thermal generation and any units installed or significantly rehabilitated after the start of the project measured at point of generation. The methodology will account for changes in fuel throughout a given year using the hourly kgCO2/kcal figure which will be determined by the average CO_2 content per kcal of fuel based on type and relative quantities of fuels used.

The baseline emissions for year x is determined for each hour in year x by multiplying the power supplied to the end of the transmission system for that hour measured in kWh by the average efficiency of the thermal units in the baseline for that same demand point measured in kcal/kWh. The sum of this calculation performed for all the hours in a given year is a measure of the total kilocalories that would have been expended in the project year given the same level of efficiency in the generation as the baseline year. This number is then multiplied by the carbon coefficient for the project year measured in kg CO2/ kcal to get a total carbon emissions in year x for the baseline scenario.

Baseline Emissions in year x equals

$$\sum_{i_x=1}^{8760} (D_{i\ year\ x} * kcal/kWh_{Di\ year\ 0}) * kgCO2/kcal_{i\ year\ x}$$

Where
i = Given hour in a year
Di=Total fossil fuel generated electricity delivered in kWh at given hour i where total fossil-based electricity equals total measured electricity delivered through the transmission system minus the total non-fossil generation measured at the site of generation
$Kcal/kWh_{Di\ year\ 0}$ = an efficiency factor for the fossil fuel based load at the given delivered amount in hour i (Di) as found in the baseline year
Year x= given project year being compared to baseline
Year 0= baseline year

D.7. Elaborate and justify formulae/algorithms used to determine the emissions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates):

There will be no emissions due to the project activity. Installing a SCADA system, consisting mainly of computer controls, cables, and meters will not result in any significant emissions within the project boundary.

D.8. Description of how the baseline methodology addresses any potential leakage of the project activity:

There is no leakage expected from the installation of a control and data acquisition system. The installation of the SCADA system is mostly labor and software and would not lead to additional project emissions.

D.9. Elaborate and justify formulae/algorithms used to determine the emissions reductions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates):

The project is designed to improve the system-wide efficiency of the electricity system by better utilizing the generation capacity and reducing line losses through better management data and tools. The Supervisory Control and Data Acquisition (SCADA) system will allow the cumulative kcal per unit of electricity generated and delivered through the transmission system up to the distribution system to decrease. This will happen because load is being better managed to maximize the efficiency of generation from all the power plants in the grid; in addition, the I^2R losses can be minimized by better utilizing the existing transmission system. The efficiency factor of total kWh delivered to metered distribution points per total kcal expended (kcal/kWh) is used because it captures (a) improvements in efficiency at both the generation point and (b) reduction in lines losses resulting from the SCADA system. This efficiency ratio will be measured at each level kWh of delivery in the baseline year so that it can be compared to data in the project year at the same point of delivery.

For example, in the baseline year .3 million kcal/MWh are required to deliver 1000 MWh to the terminal points of the transmission system. If in the post-project year to deliver the same amount of electricity to the end of the transmission system only takes .291million kcal/MWh, it will be clear there has been a three percent efficiency improvement in the system's ability to deliver 1000MWh. This improvement will result from some combination of reduced line losses and increased generation efficiency due to the SCADA system.

In order to ensure the accuracy of the emission reductions will be measured on an hourly basis to allow the project developer to compare the thermal-system efficiency at a given amount of kWh delivered to the transmission system from the baseline year with the improved efficiency of the system at the same demand point in the project year. If for some reason in certain operational conditions the kcal of consumption per kWh at a given demand are higher than in the baseline case it will result in a deduction from the total overall savings.

Renewable loads and new thermal generation brought on after the initiation of the project will not be included in order to isolate the direct effect of the project on fossil fuel use and be extremely conservative. In order to isolate the fossil fuel production from other sources, the project developer will define the delivered amount used in this calculation by taking the total electricity delivered measured at the end points of the transmission system and subtract any non-thermal generation and any units installed or significantly rehabilitated after the start of the project measured at point of generation. The methodology will account for changes in fuel throughout a given year using the hourly kgCO2/kcal figure which will be determined by the average CO2 content per kcal of fuel based on type and relative quantities of fuels used.

The emissions for year x is determined for each hour in year x by multiplying the power supplied to the end of the transmission system for that hour measured in kWh by the average efficiency of the thermal units measured in kcal/kWh. The sum of this calculation performed for all the hours in a given year is a measure of the total kilocalories that have been expended in the project year. This number is then multiplied by the carbon coefficient for the project year measured in kg CO2/ kcal to get a total carbon emissions in year x. This should equal the combined total of each fossil fuel consumed multiplied by the relevant CO2 emissions factor for that fuel.

Actual Emissions in year x equals

$$\sum_{i_x=1}^{8760} (D_{i\ year\ x} * kcal/kWh_{Di\ year\ x}) * kgCO2/kcal_{i\ yearx}$$

Where
i = Given hour in a year
Di=Total fossil fuel generated electricity delivered in kWh at given hour i where total fossil-based electricity equals total measured electricity delivered through the transmission system minus the total non-fossil generation measured at the site of generation
$Kcal/kWh_{Di\ year\ x}$ = an efficiency factor for the fossil fuel based load at the given delivered amount in hour i (Di) as found in the project year
Year x= given project year being compared to baseline

This should equal

$$\sum_{Fuel_x=1}^{n} (\text{total kcal fuel}_x \text{ consumed in year x} * kgCO2/kcal_{fuelx})$$

Where
$Fuel_x$ = the types of fossil fuel used in year x
Year x = project year
n= number of different fossil fuels consumed

The emissions reductions are simply calculated as the difference between Baseline Emissions calculated for year x and Actual Emissions calculated for year x.

Baseline $Emissions_x$ –Actual $Emissions_x$ = Emission $Reductions_x$

SECTION E. Data sources and assumptions:

E.1. Describe parameters and or assumptions (including emission factors and activity levels):

In cases where better data does not exist, the carbon content of the fuel will be determined by IPCC data sources or from similar fuels in neighboring countries.

E.2. List of data used indicating sources (e.g. official statistics, expert judgement, proprietary data, IPCC, commercial and scientific literature) and precise references and justify the appropriateness of the choice of such data:

Data for carbon content of fuel sources will use IPCC data unless more accurate scientific studies exist outlining the carbon content of specific fuel used. Official electricity company statistics will be used to determine the total electricity generation per unit and the kcal/kWh used by each unit is both baseline and subsequent years. The SCADA system itself will likely supply the data required to monitor the impacts of the project.

E.3. Vintage of data (e.g. relative to starting date of the project activity):

Baseline efficiency data for each generation unit will include the baseline year and if possible two years prior to the baseline year. The rest of the data will be gathered on an annual basis.

E.4. Spatial level of data (local, regional, national):

The data will be gathered on a nation or regional power grid level. Local data for each generation unit will be gathered.

SECTION F. Assessment of uncertainties (sensitivity to key factors and assumptions):

If additional generation capacity is added to a system after the SCADA system is put in place, the efficiency of operation of the other generation units may be affected. The new plant, which will not be included in the carbon project, is going to be the most efficient, least cost option and likely will be operated as much as possible. This may reduce the efficiency of generation of other plants that are operated less or at lower, more inefficient production levels. While the addition of new generation capacity may add a significant layer of uncertainty to the project results, the error will almost always be on the conservative side since the generation units included in the project are much more likely to have their post-project efficiency levels reduced.

SECTION G. Explanation of how the baseline methodology allows for the development of baselines in a transparent and conservative manner:

Data is collected and calculated in a transparent manner. The SCADA system will provide clear and highly accurate data. As mentioned above the methodology's solution to the key uncertainty which is mitigating the impact of new generation added to the grid by keeping these generation units outside the project boundaries will likely make the data more conservative.

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