

# SGF Agenda Item 2: Report back from the Working Group

Ontario Smart Grid Forum  
Tuesday, September 7, 2010



- **Recall:** 2009 SGF Report (*“Enabling Tomorrow’s Electricity System”*):
  - *“Preliminary cost projections prepared by Forum members and extrapolated to cover Ontario’s entire grid sector (distribution, transmission and the IESO) estimate that incremental annual capital spending on a smart grid would average about \$320 million over the initial five years.\*”*

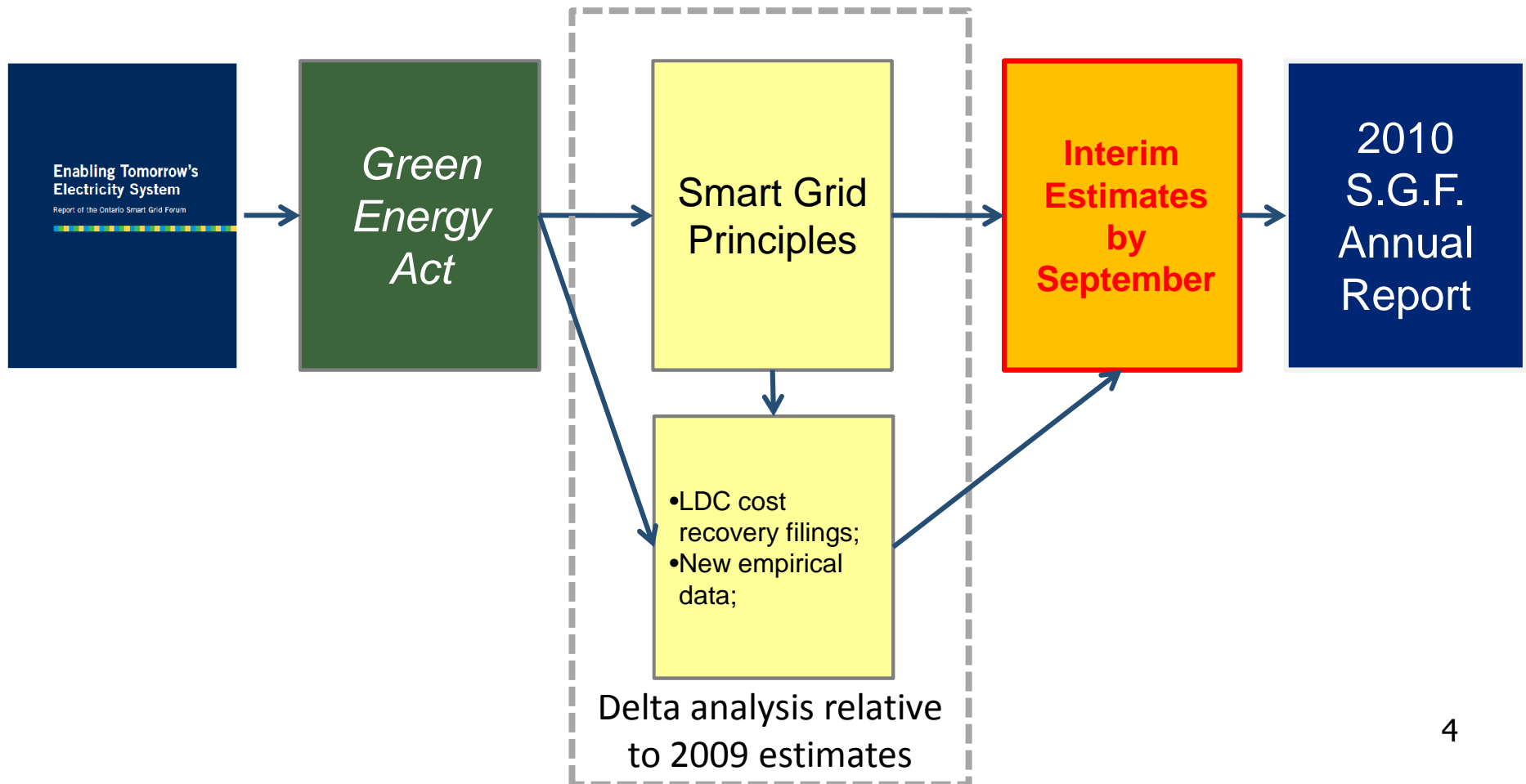
\* “Comparisons between this estimate and the smart grid spending estimates for other jurisdictions are not meaningful because of the different spending categories included in various figures and the different starting point for each jurisdiction. For example, the above cost estimate does not include the cost of renewable energy resources or any smart meter costs. “

- Much has happened since the original projection of incremental smart grid capital costs was published in the 2009 report of the Smart Grid Forum
- Over the past two months, the Working Group and the SGF have discussed the emerging “story board” of how the landscape has changed since the original estimate was produced...

2009

2010

2011



## Recall:

- Action item assigned by SGF to working group on June 8<sup>th</sup>:

*“The Working Group should commence the development of a smart grid costing model.”*

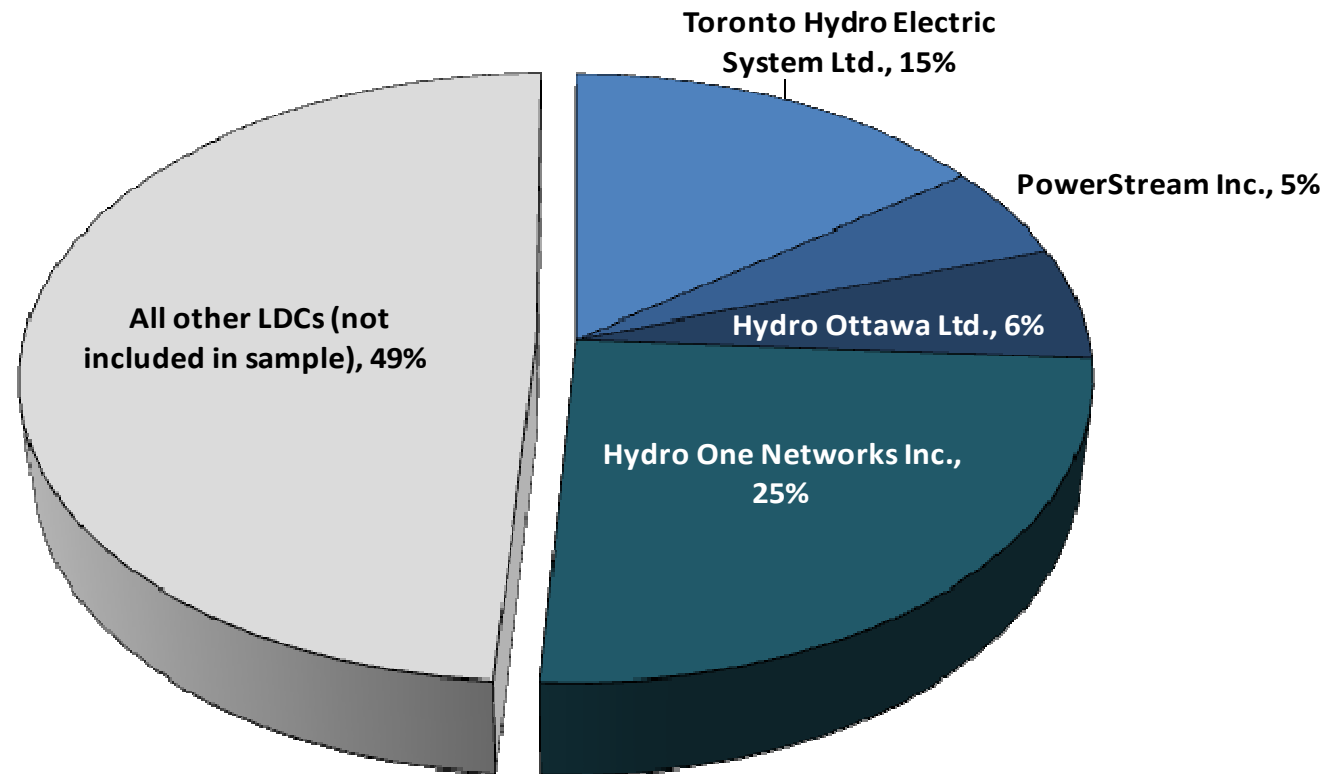
- Refinement of action item at July 13<sup>th</sup> SGF meeting:

*“The Working Group should move forward with its smart grid cost analysis using readily available data such that an interim estimate could be ready for use by Ministry of Energy and Infrastructure by September 1st.”*

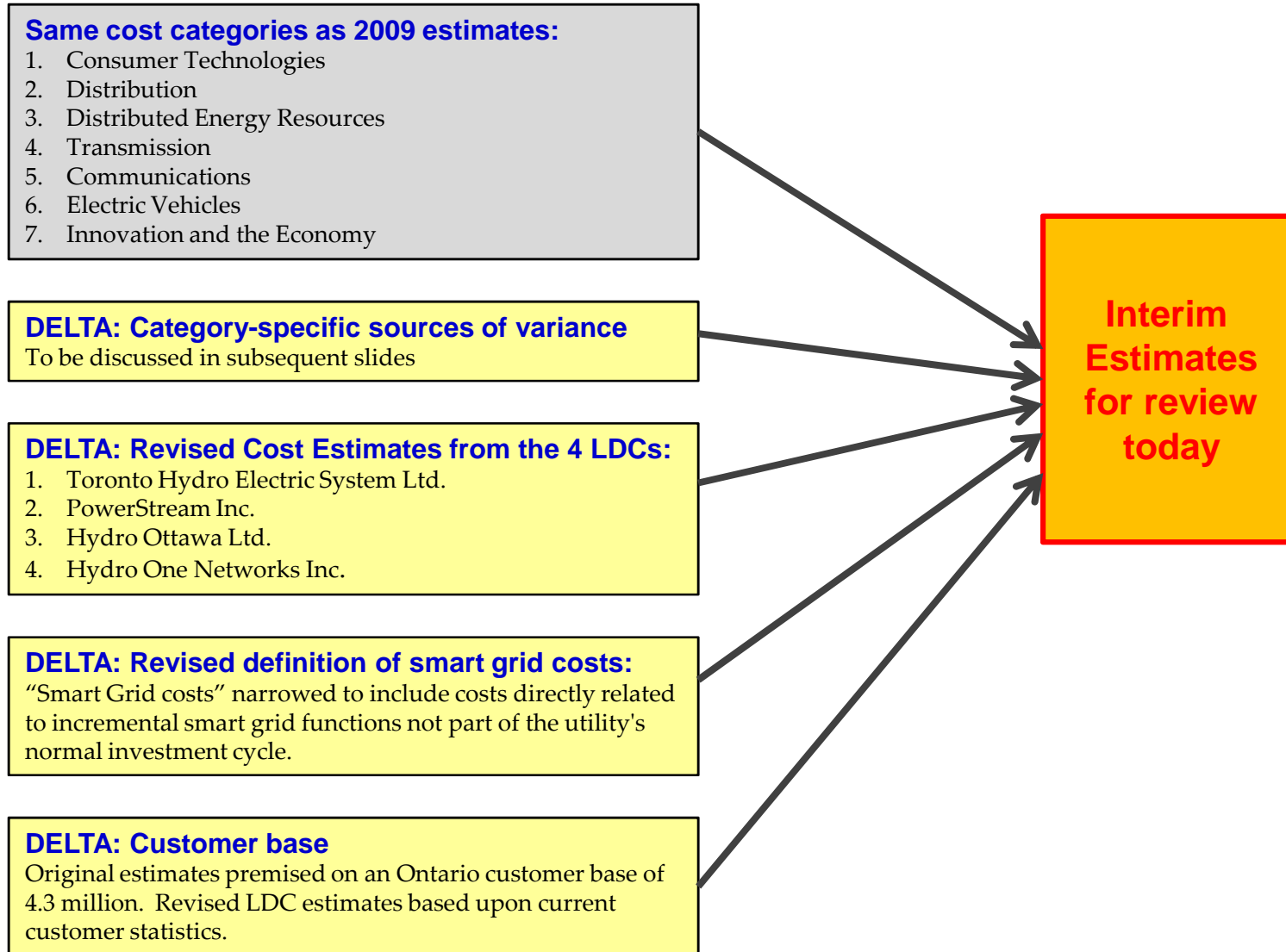
## **Recent Activity:**

- A sub-group of the main SGF Working Group, consisting of four LDCs has been meeting on a regular basis over the course of August.
- The principal focus of the sub-group has been to revise the 2009 incremental capital cost estimates using readily available data from the four member LDCs themselves.

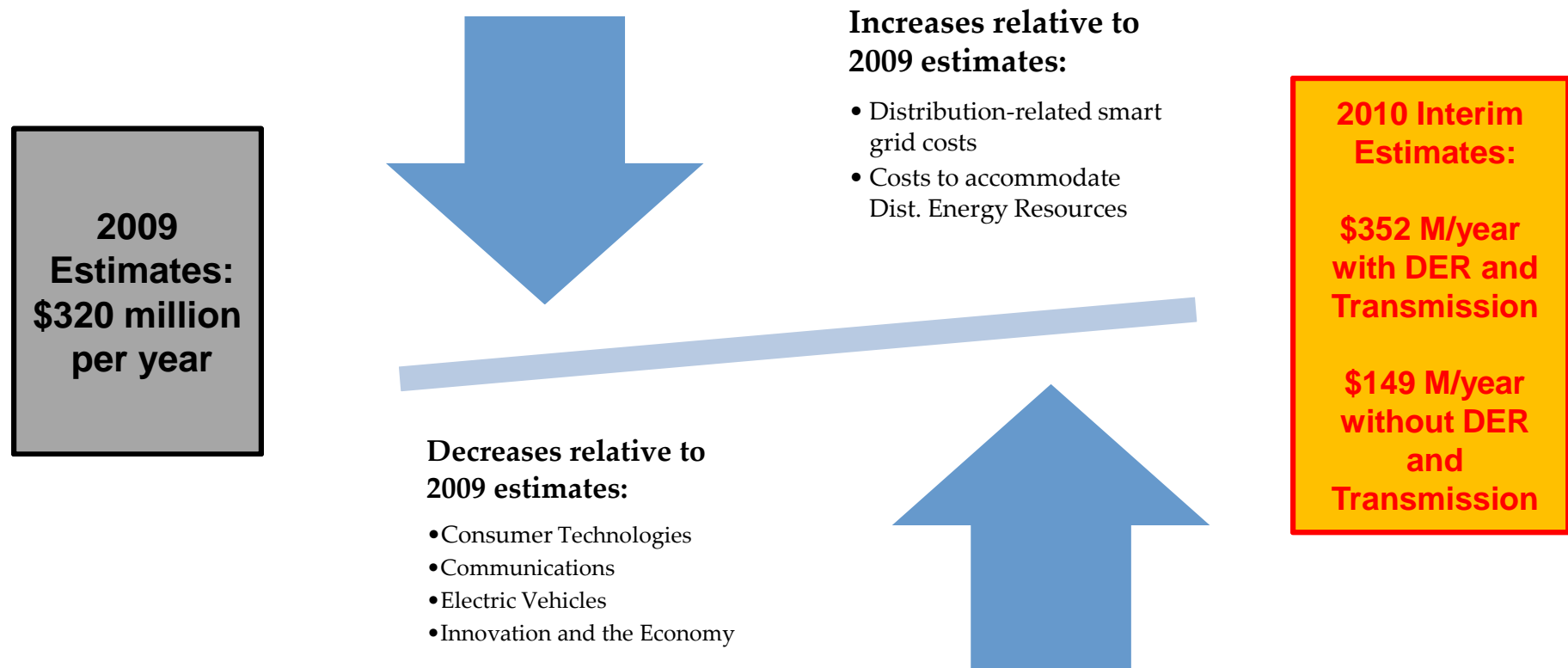
## Representative Sample Size: As a Percentage of the Ontario Customer Base



# Methodology – sources of change to estimates (the “Deltas”)

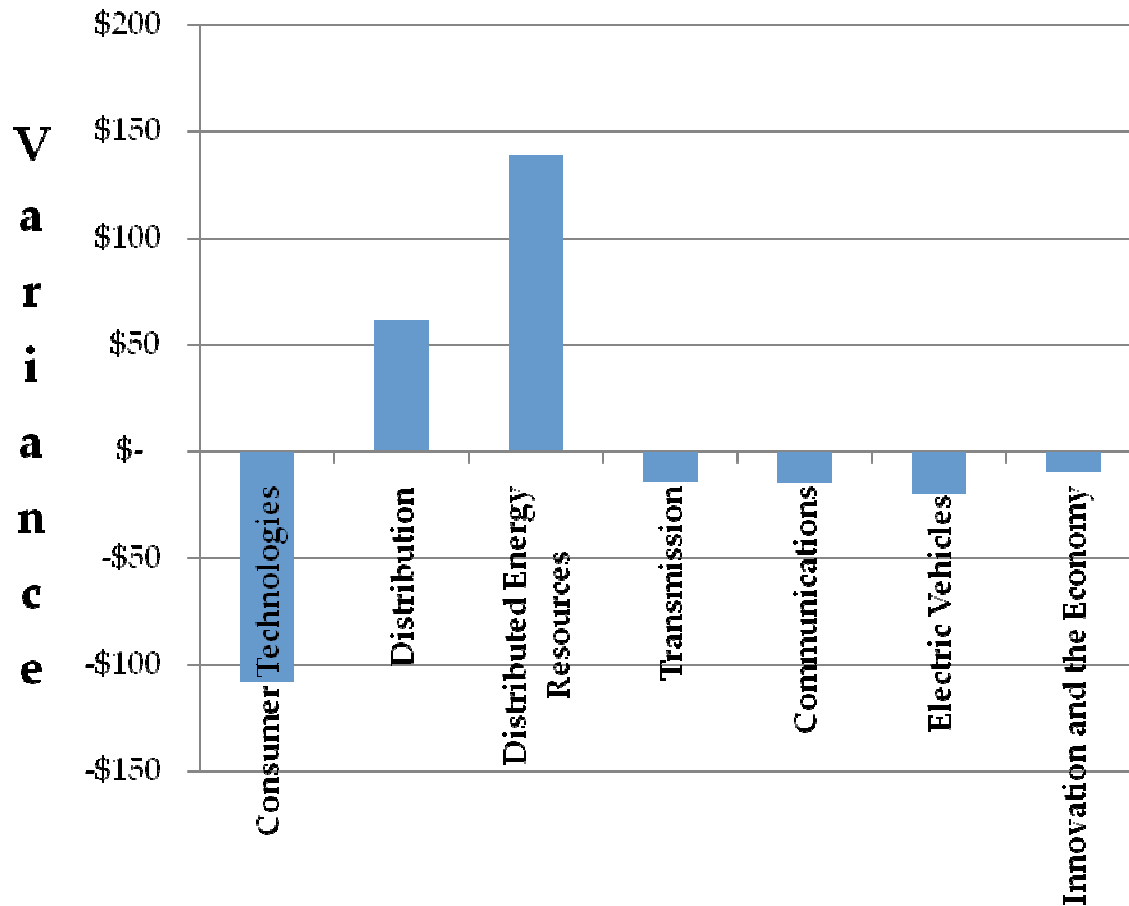


The net result of the various “deltas” is an overall increase of approximately \$31.9 million per year....



## From \$320M to \$352M – sources of variance by category

**2009  
Estimates:  
\$320 million  
per year**



**2010 Interim  
Estimates:  
  
\$352 M/year  
with DER and  
Transmission  
  
\$149 M/year  
without DER  
and  
Transmission**

2009 Estimate: \$ 111.9 M/year

2010 Estimate: \$ 3.9 M/year

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Variance: (\$ 108 M/year)

Principal reason(s) for variance:

- Change in outlook from early 2009: LDCs not likely to play a lead role in funding consumer technologies – marketplace driven

2009 Estimate: \$ 72.3 M/year

2010 Estimate: \$ 133.9 M/year

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Variance: \$ 61.6 M/year

Principal reason(s) for variance:

- Value of smart grid largely realized and enabled by the distribution system (e.g. automation)



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# Variance Discussion – Distributed Energy Resources

2009 Estimate: \$ 57.9 M/year

2010 Estimate: \$ 196.4 M/year

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Variance: \$ 138.5 M/year

Principal reason(s) for variance:

- Introduction of the *Green Energy Act*

2009 Estimate: \$ 20.6 M/year

2010 Estimate: \$ 6.4 M/year

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Variance: (\$ 14.2 M/year)

Principal reason(s) for variance:

- Introduction of the *Green Energy Act* and improved definition of incremental, smart grid costs

2009 Estimate: \$ 22.8 M/year

2010 Estimate: \$ 8.1 M/year

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Variance: (\$ 14.7 M/year)

Principal reason(s) for variance:

- Affected by improved definition of incremental, smart grid costs

2009 Estimate: \$ 22.4 M/year

2010 Estimate: \$ 2.6 M/year

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Variance: (\$ 19.8 M/year)

Principal reason(s) for variance:

- Current costs largely driven by pilot project
- Revised outlook on growth rates and timelines to full-scale commercialization.
- Business model not yet clear.



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# Variance Discussion – Innovation and the Economy

2009 Estimate: \$ 10.2 M/year

2010 Estimate: \$ 0.8 M/year

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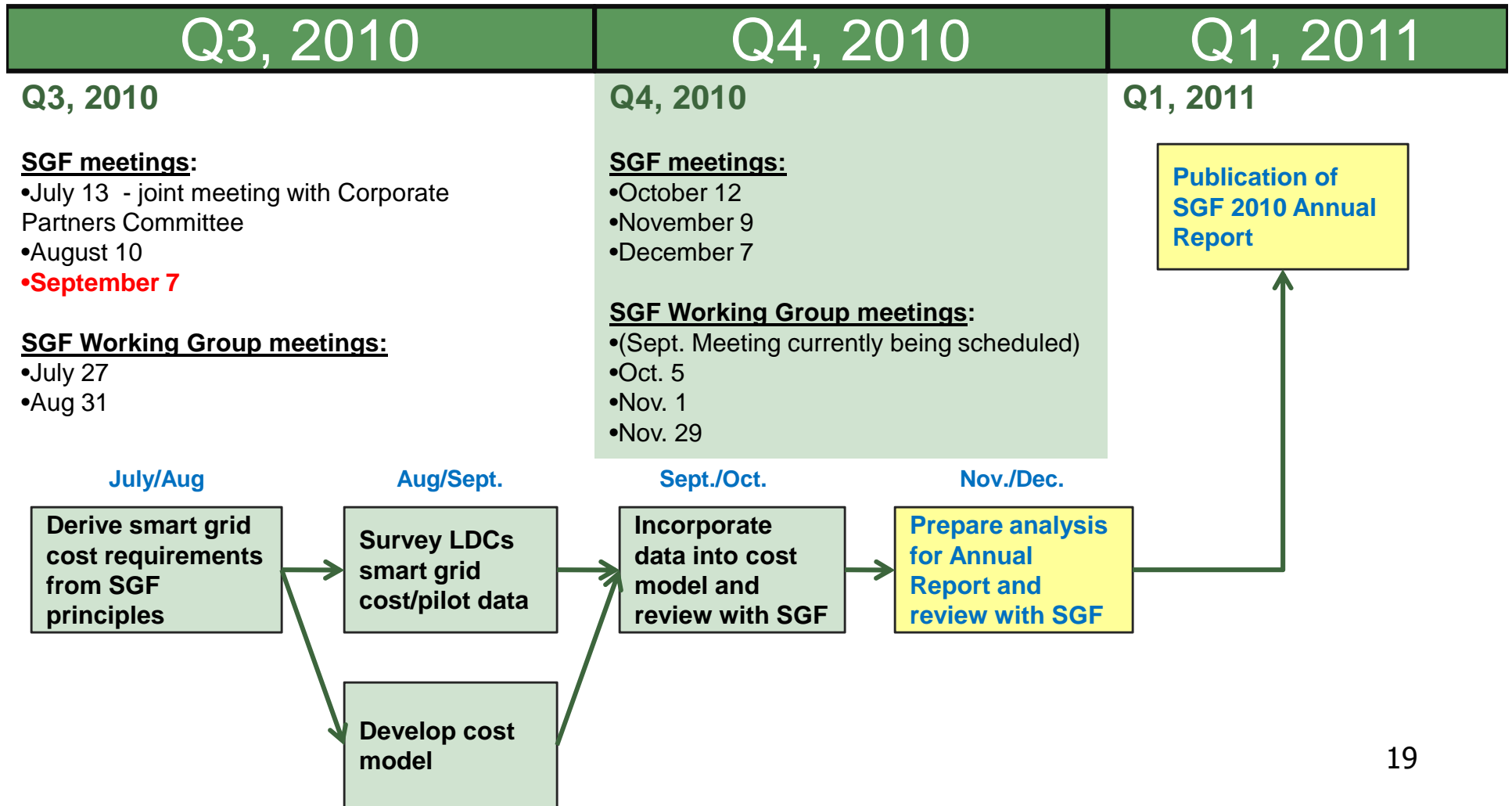
Variance: (\$ 9.4 M/year)

Principal reasons for variance:

- Less emphasis on LDC-driven research and development (though other such costs could be incurred outside of the LDC community).

- **All:** review current interim estimates
- **All:** agree to a protocol and communications plan for the use of these interim estimates
- **Working Group:** Begin to develop discussion of associated smart grid benefits with a view to include it in the 2010 Report of the SGF

## Work Plan:





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Thank you.