



# Unpacking Directions 2031 +

Western Power's Vision for Western Australia's Energy Future

Presented by  
David Bones  
**Western Power**



# Where are we heading?

- **The Planning Process**
  - **Forecasting needs**
  - **Developing solutions**
- **Investment strategies**
  - **Smart Grid**
- **Engagement Opportunities**

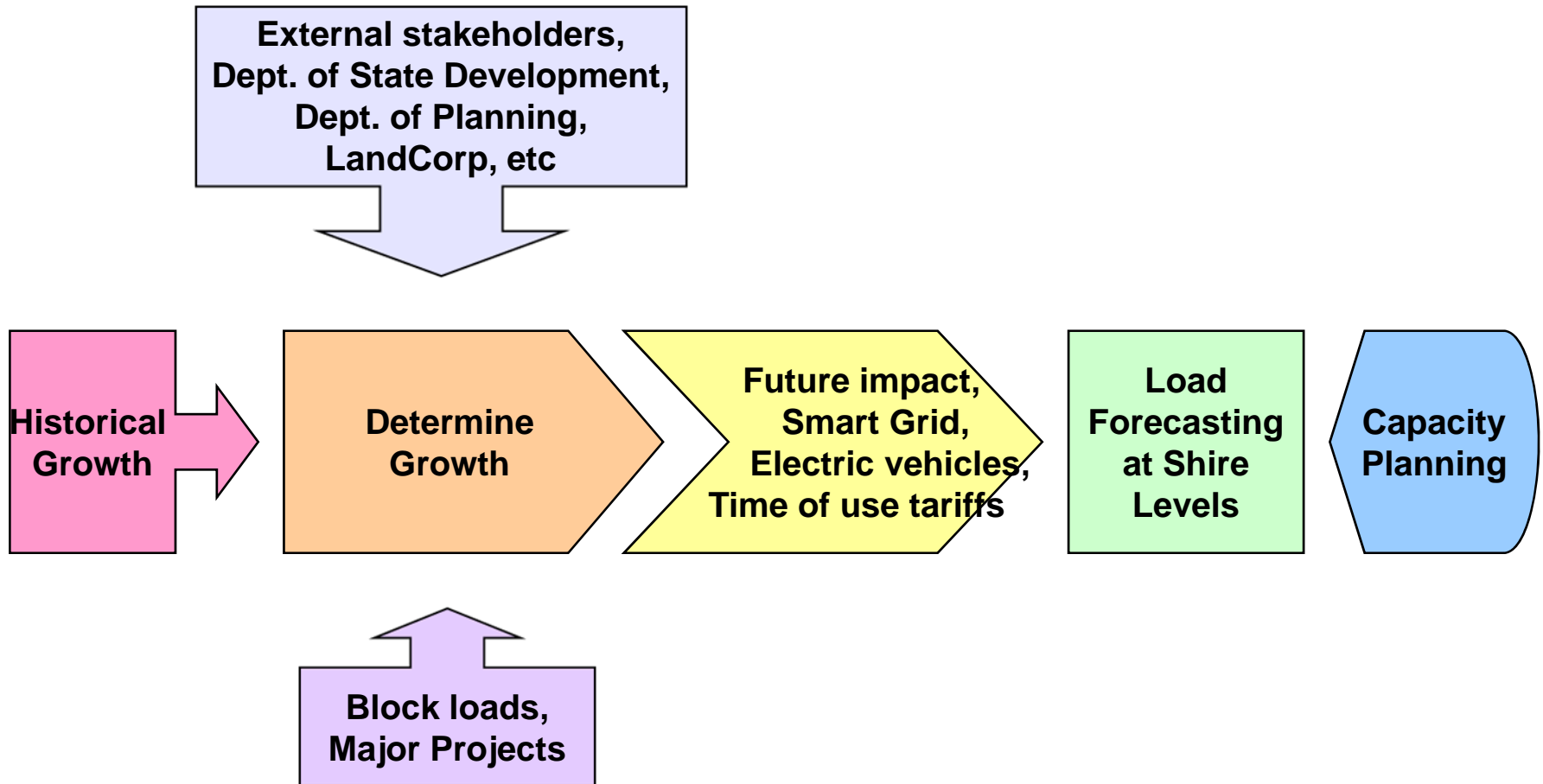


# Our Process

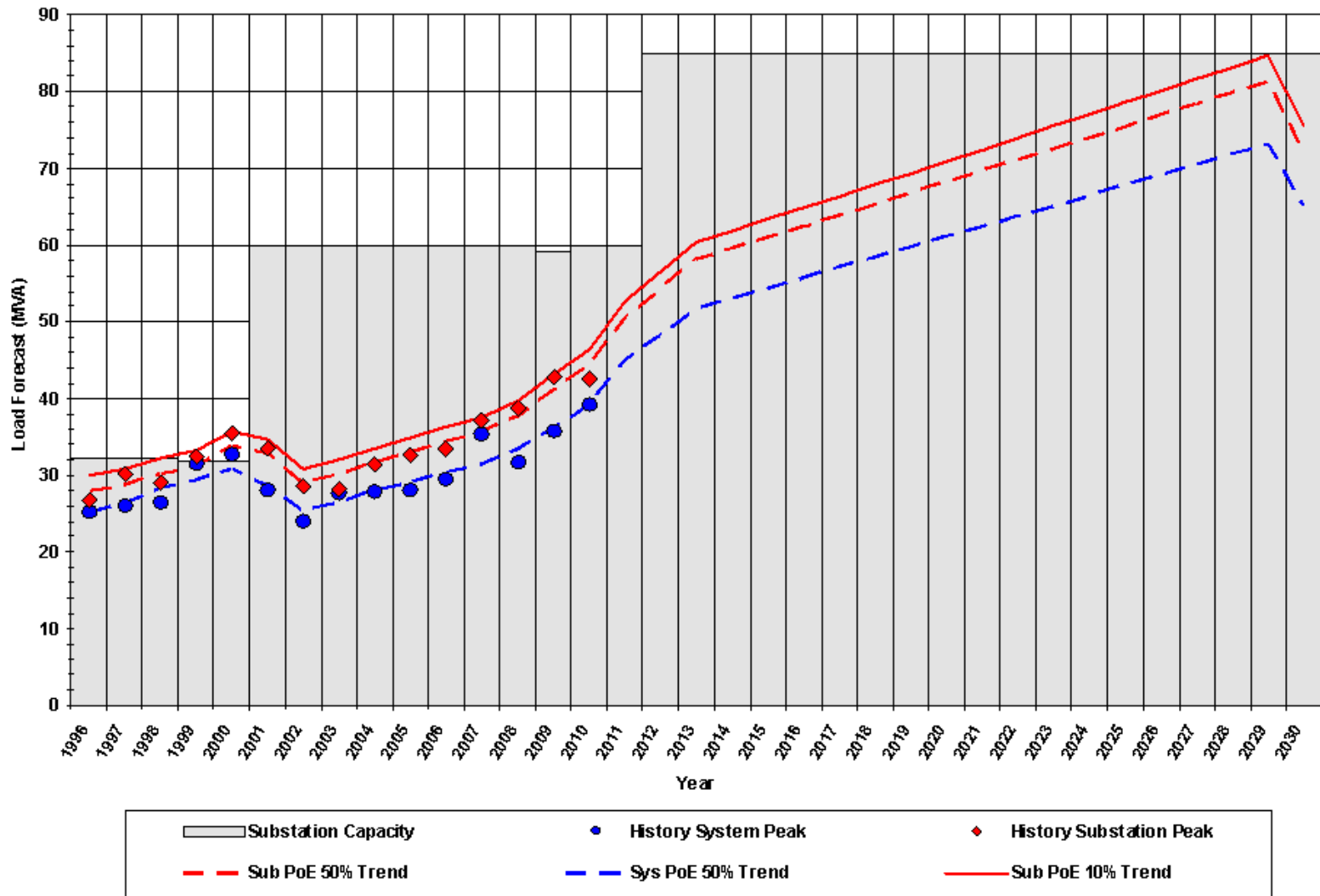
- **Western Power produces its own independent demand forecasts**
- **Directions 2031 is one of the key inputs used in our forecasts**
- **Detailed options analysis determine the best possible solution to cater for growth**



# Planning Process



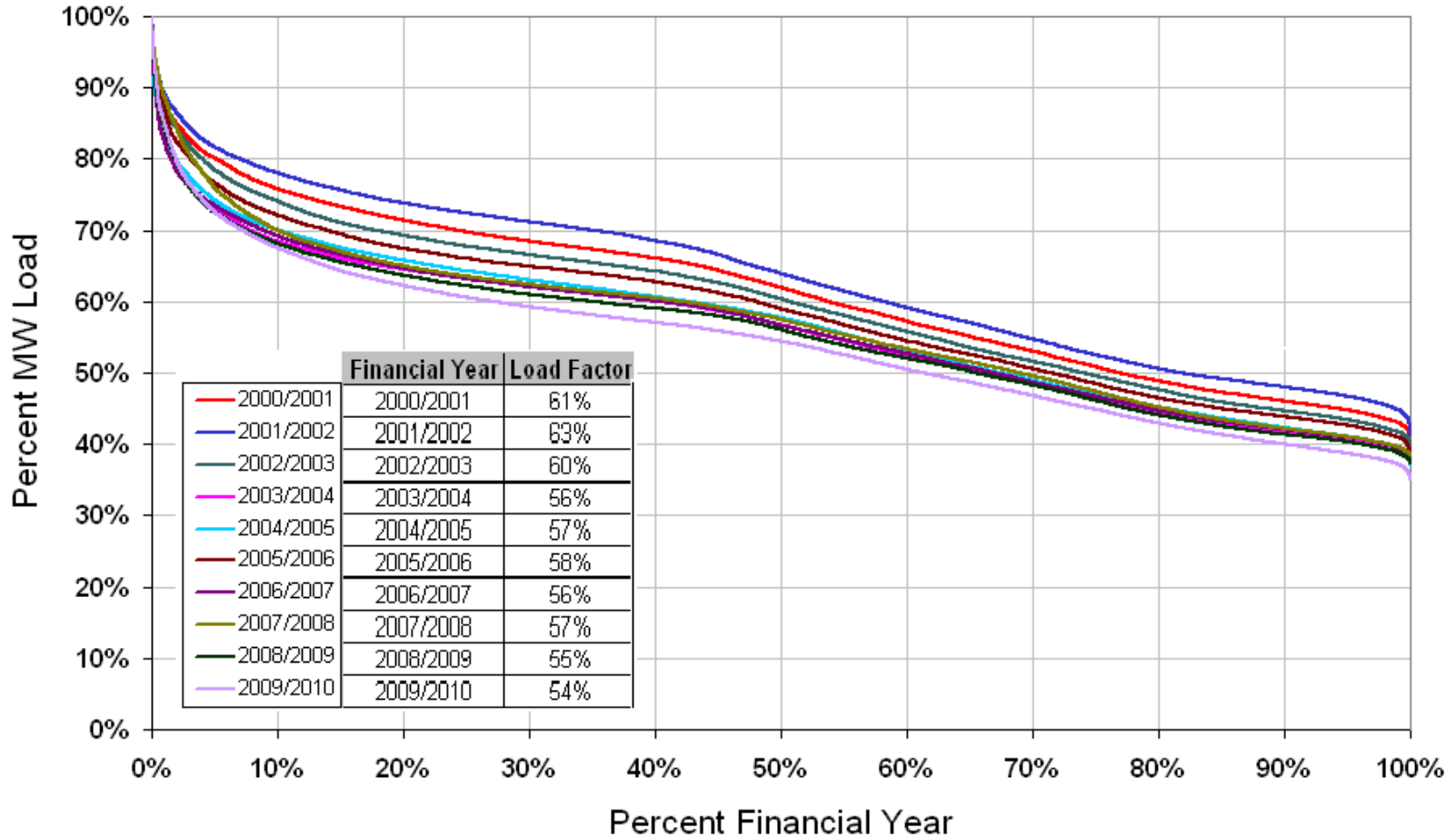
# The Challenge



Demand

# The Challenge

## Load Duration Curve for Western Power's South West Interconnected System (SWIS)



Energy

# The Challenge

## Demand

- Customers demand a secure and reliable service
- Renewable energy cannot be available at all times, e.g. PV systems may not work on a cloudy day
- Western Power needs to manage the uncertainty to ensure that demand can be accommodated
- Manage peak demand

vs

## Energy

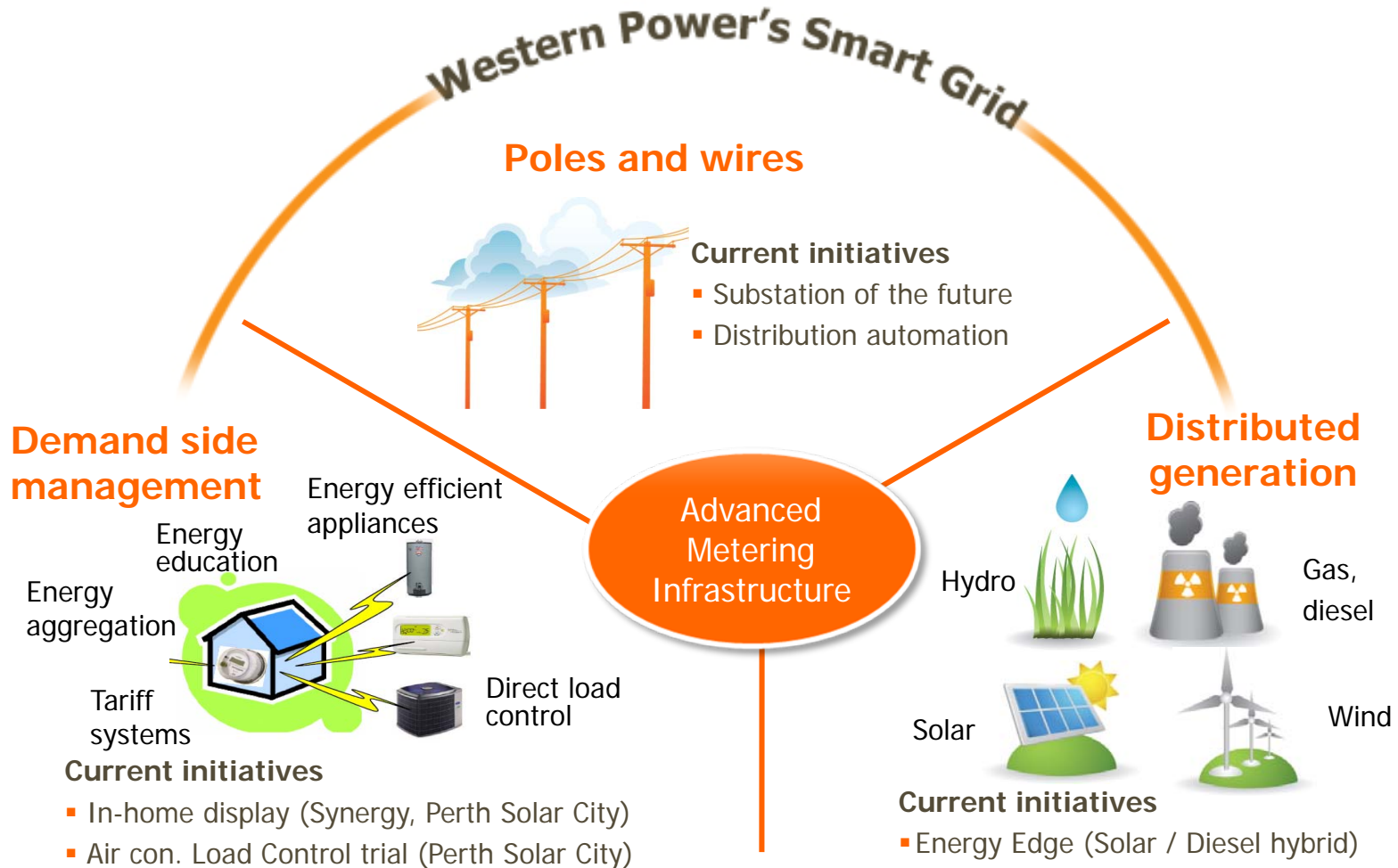
- Increase in usage of renewable energy will drop CO<sub>2</sub> emissions
- Energy efficiency initiatives need to be encouraged
- Educating the customer to better manage and reduce their energy use

# Network Investments

- **Must be economically efficient**
- **Accommodate potential uncertainty**
- **Cater for brownfield and greenfield developments**



# Smart Grid



**Continue to be involved via various pilots.  
Establish a long term road map**

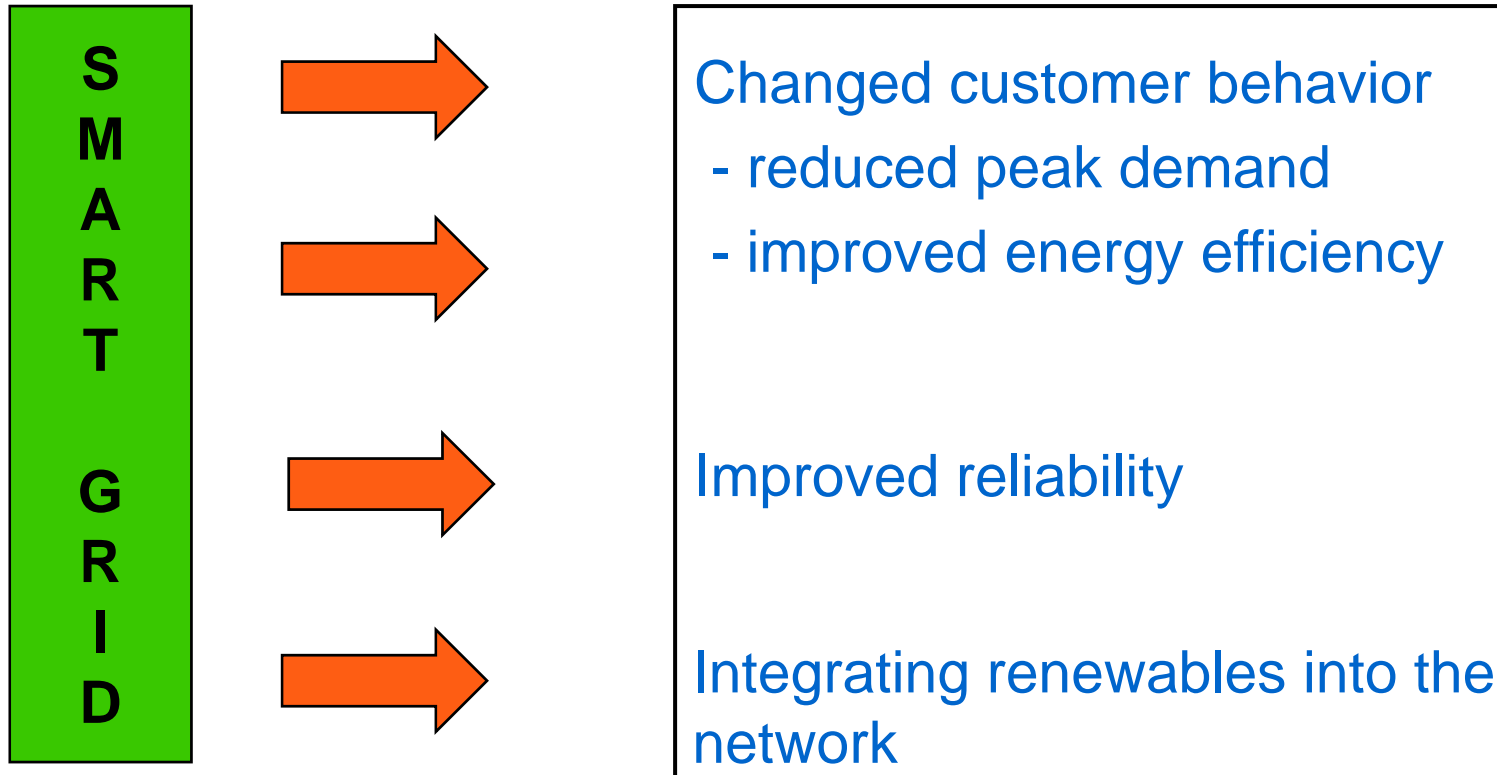
# Smart Grid

- **Development of a Smart Grid is the most effective way the network can support Western Australia's Strategic Energy Initiative's (SEI).**



- **Smart grid offers the community a way to better manage its carbon footprint and tackle the major challenges in the industry for decades to come.**

# Smart Grid Enables



# Network Planning Challenge

- **Uncertainty**
- **Continually improving planning practices**
- **Improved communication and coordination between the public and private sector**



# Engagement

- **Annual Planning Report**
  - 5<sup>th</sup> Nov release
  
- **Network Capacity Mapping Tool**
  - First quarter 2011 release
  - Geospatial planning information

