

## Safe Harbor Statement

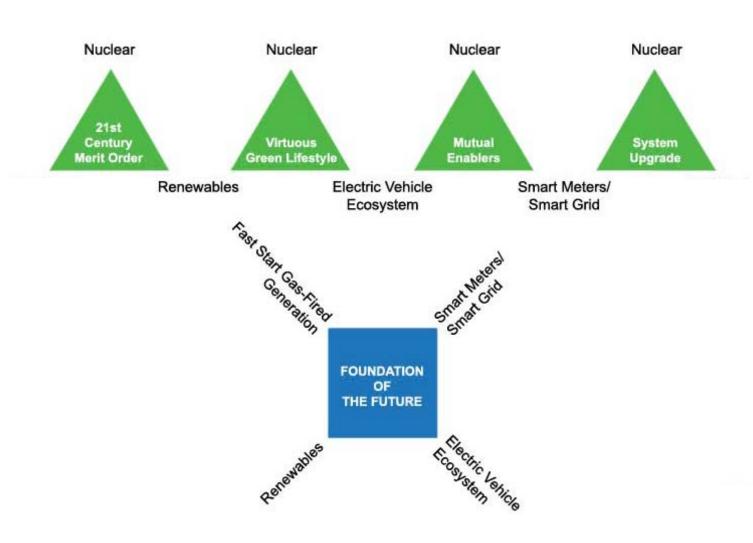


This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to certain risks, uncertainties and assumptions and typically can be identified by the use of words such as "expect," "estimate," "should," "anticipate," "forecast," "plan," "guidance," "believe" and similar terms. Such forward-looking statements include NRG's nuclear and electric vehicle ecosystem developments Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, receipt of federal loan guarantees, additional partnering relationships, competition in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale power markets, changes in government regulation of markets and of environmental emissions, the condition of capital markets generally, and our ability to access capital markets.

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## The Nuclear Pyramid





## Smart Grid Key Enabler For New Nuclear REG TODAY AND TOMORROW



#### **Smart Grid Capability**



Predetermined time blocks to motivate offpeak EV charging

2. Smart Charging





Real-time control of dispatch to EV chargers to best meet customer needs at lowest economic cost.

3. Load Optimization Real-time coordination of





Real-time coordination of EV charge (or discharge) with local loads, generation, and storage to optimize cost and to address meter limits, grid limits, and customer needs

4. Vehicle-to-Grid



Returning stored or generated energy to the grid in times of extreme supply/demand imbalance

## **New Value Unlocked by EV**

- Aids load curve with off-peak demand
- Shapes load for real-time demand
- Actively manages power limits of home
- Preserves transformer/feeder integrity
- Consumer of zero-emission power
- Distributed grid storage and generation

Improves shape of dispatch curve to homes, using low-carbon baseload and renewable generation while protecting grid integrity

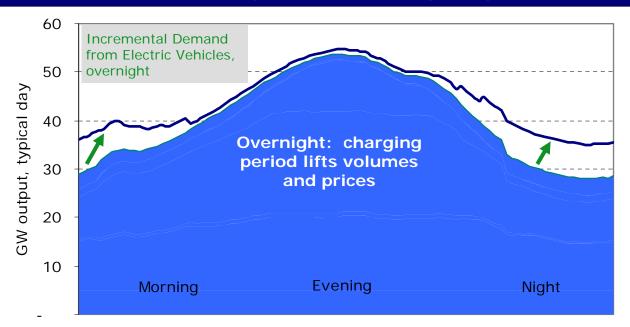
Smart Grid connects zero-emission Nuclear Power to zero-emission Electric Vehicles through the garage, turning Nuclear Power into the "refinery of the future"



## Nuclear and the Electric Vehicle: Changing the Daily Load Profile



#### Wholesale Perspective: MWs and Spark Spreads



#### Wholesale: Electric Vehicle Drives Greater Demand and Higher Prices

- > Need more generation to charge vehicles as EV market share increases
- > Higher volumes support prices (energy and capacity)
- > Higher prices drive increased spark and dark spreads

Note: Source: NRG Research, ERCOT, Electrification Coalition. "Typical" day in ERCOT shown. Assumes fully deregulated service territory. Spot revenue per customer shown: actual revenue will be based on a fixed bundled package rate including cost to provide capacity and energy services and charging infrastructure.

Electric Vehicles Avert the Inevitable "Midnight Clash" Between Nukes and Renewables

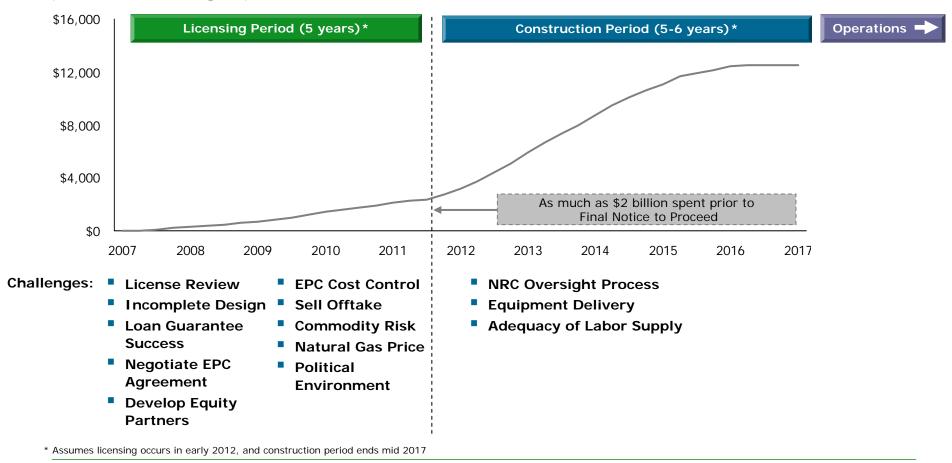


## **Managing Nuclear Risk**



#### **Cumulative Project Spend**

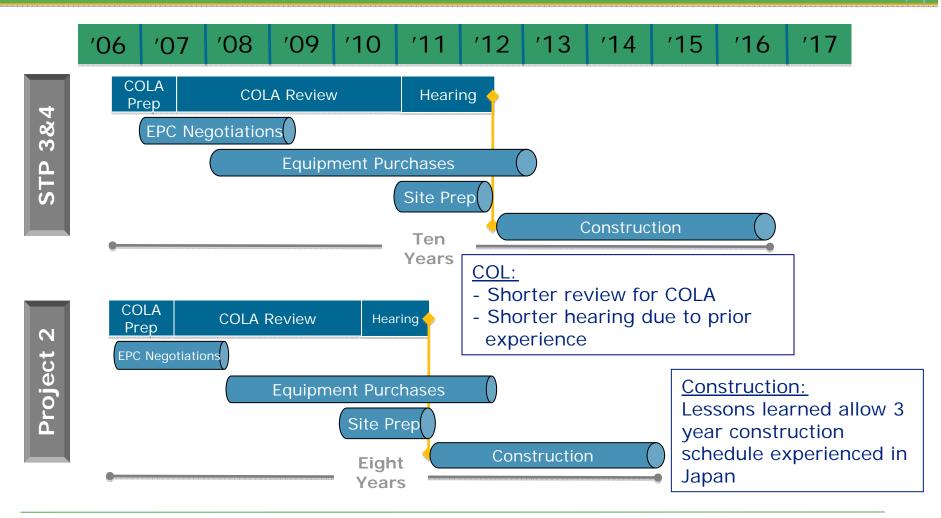




Unlike traditional development, nearly 20% of project cost is spent during the development and licensing period

# **Shortening the Nuclear Development Timeline**





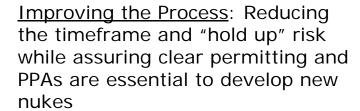
The goal should be for each new plant of the same reactor type to have a shorter licensing and construction timeline

## Why NRG and the Country Need KGL "Nuclear Title"



### **Policy Goal**

American Jobs: Rapid nuclear deployment (with smart grid and EV) is the key to creating cleantech jobs, economic growth, lower emissions, and cutting America's dependence on foreign oil



Environmental and Energy Policy: Major nuclear policy initiative is helpful as part of comprehensive legislation

### **Current Reality**



Without acceleration of current nuclear policy, rapid and low-cost deployment will not happen



Current process is lengthy, risky, and above all, expensive, offering "ambush points" for hold-up artists to extract value



Without strong nuclear provisions, comprehensive energy and climate law will not pass Congress; and without climate and other compatible energy components, nuclear plants may be "fish out of water"

# What Policies Will Really Help Deploy Nuclear Quickly and Safely?



Federal Policy	Policy Benefits
Loan guarantees	<ul> <li>Largely self-funding, essential for financing and efficient project management</li> </ul>
Expedited regulatory timeline	<ul> <li>No compromise on safety, but less time to get to commercial viability (fewer ambush points)</li> </ul>
Federal siting support	<ul> <li>Site procurement, licensing and approval can add years and additional ambush points</li> <li>US government property (e.g. military bases) can significantly reduce risk</li> <li>The "Class V wind resources" for nuclear power</li> </ul>
Clean Energy Standard	<ul> <li>Make 25-year PPAs for new nuclear projects easier to obtain, while injecting cost and risk management discipline into entire clean energy market both elements critical to nuclear success and a low-cost, low-carbon, no-imported-oil energy infrastructure</li> </ul>

Innovation for a nuclear title that will really work

## The Kerry, Graham & Lieberman Initiative NRG TODAY AND TOMORROW



Policy Issue	Policy Measures - NRG View
Nuclear	Loan guarantees, expedited siting (including federal lands), greater NRC bandwidth, ex-im risk mitigation, incentives to onshore manufacturing & assembly
Drilling & EV	Increase environmentally responsible off-shore production, resolve legal, liability and regulatory risks around carbon capture & sequestration for enhanced oil recovery, fund key EV ecosystems
Coal	Resolve legal, liability and regulatory risks around CCS; \$7B/year "pay for performance" incentives for CCS for first 10 years of program; loan guarantees
EPA Preemption	GHGs regulated by new statute, potential moderate "3P +" bill as well
Price on Carbon	A "phase in" of key sectors with appropriate 'no windfall' allocations to buffer consumer, emitter and business impacts, increased consumer "dividend" and strictly limited trading (e.g., auctions)
Cost Containment	More offsets plus robust strategic reserve with "circuit breaker" if price exceeds preset safe level
Competiveness	Border adjustments and phase-ins of competitive sectors conditional on international adoption of GHG limits

Energy Security, Competitive Economy and Healthy Environment

