

# The Future of Energy

**Roddy Diotalevi**

Senior Director, Sales & Marketing

UIL Holdings Corporation

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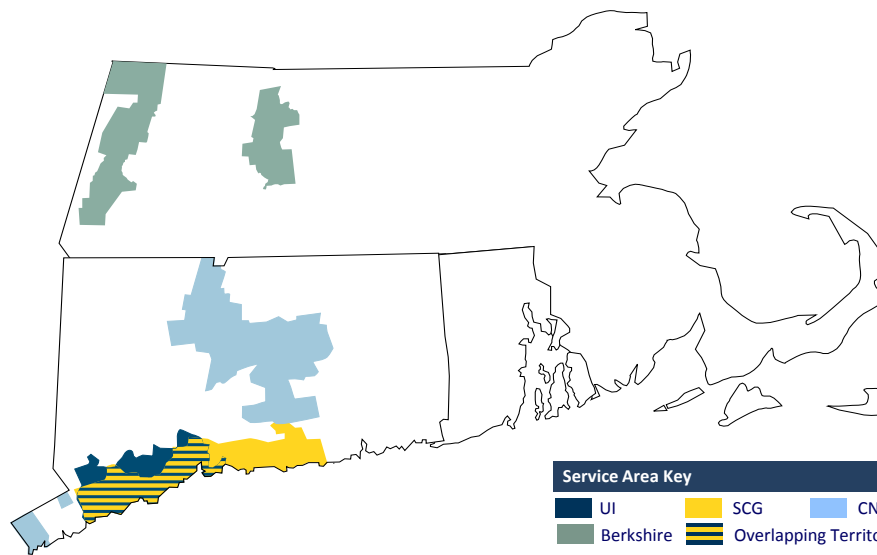




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## UIL Holdings Corporation



### Service Area Key

UI	SCG	CNG
Berkshire	Overlapping Territory	

### The United Illuminating Company (UI)

- ❑ Service territory: 335 sq miles
- ❑ ~321,000 customers
- ❑ Allowed Distribution ROE of 8.75%
- ❑ Earned '12 Transmission ROE (composite) of 12.3%
- ❑ 50% interest in GenConn Energy LLC



### Southern Connecticut Gas (SCG)

- ❑ Service territory: 512 sq miles from Westport, CT to Old Saybrook, CT
- ❑ ~188,000 customers
- ❑ 2,281 miles of mains with ~133,000 services
- ❑ Allowed ROE of 9.36% going forward



### Connecticut Natural Gas (CNG)

- ❑ Service territory: 716 sq miles - Greater Hartford-New Britain & Greenwich
- ❑ ~170,000 customers
- ❑ 2,022 miles of mains with ~126,000 services
- ❑ Allowed ROE of 9.41% going forward



### Berkshire Gas Company (Berkshire)

- ❑ Service territory: 738 sq miles in Western MA including Pittsfield and North Adams
- ❑ ~37,000 customers
- ❑ 744 miles of mains with ~31,000 services
- ❑ Allowed ROE of 10.50%



# Connecticut's Comprehensive Energy Strategy (CES)



## Intended to lower energy costs for residents & businesses

*Governor Dannel Malloy: "Focusing on innovative approaches to energy efficiency – cost effective renewable power, smarter building management, **and expanded use of low-cost natural gas**, we are reducing consumer costs, making the state more competitive, and creating good jobs with good benefits."*

*Press Release, State of Connecticut, Governor Dannel P. Malloy, February 19, 2013*

### 2013 Comprehensive Energy Strategy for Connecticut

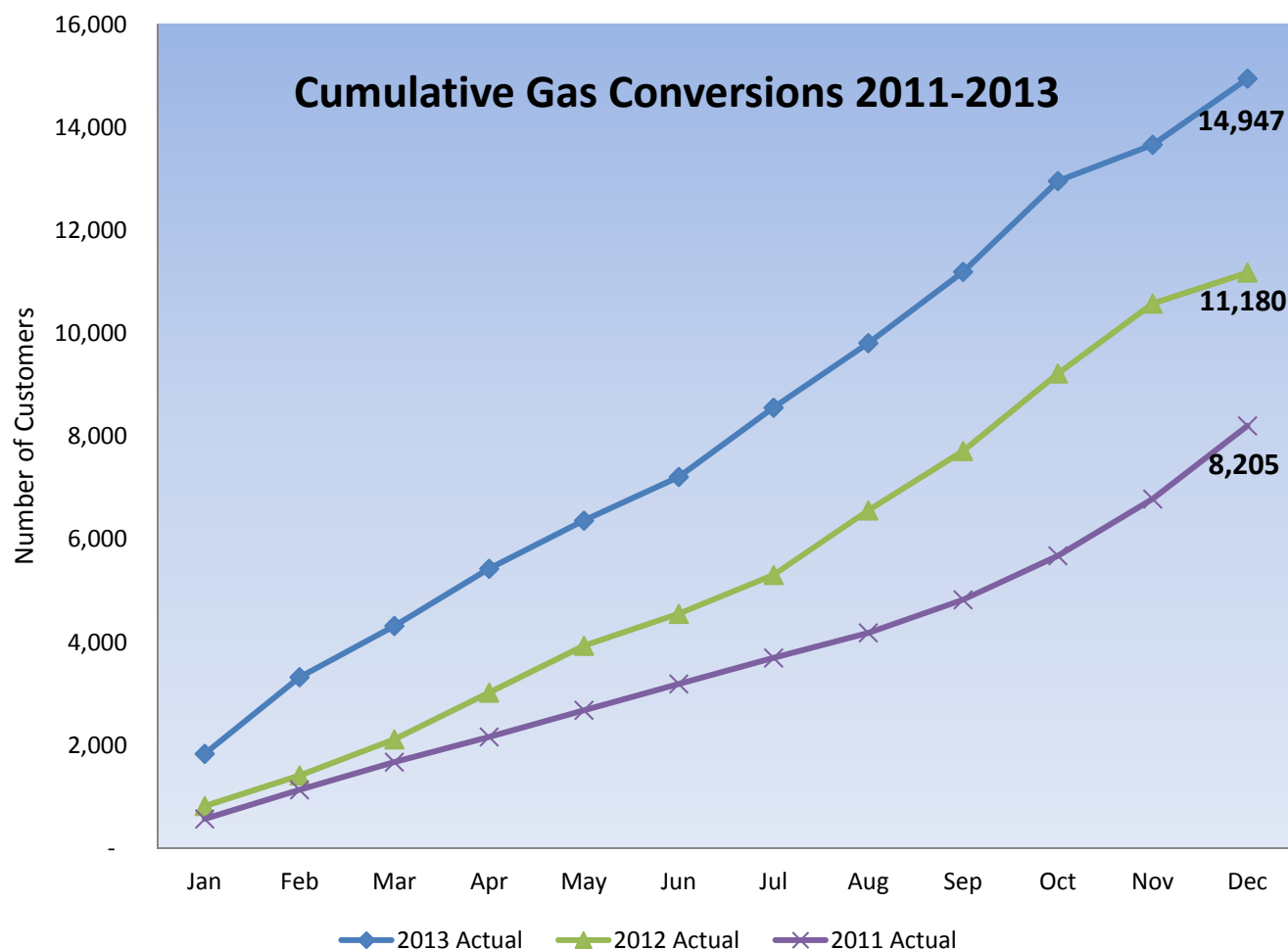
PREPARED BY  
The Connecticut Department of Energy  
and Environmental Protection



FEBRUARY 19, 2013



# UIL Gas Growth Focus



- 2011: 8,205
- 2012 :11,180
- 2013: 14,947
- 2014: 16,000 (Goal)





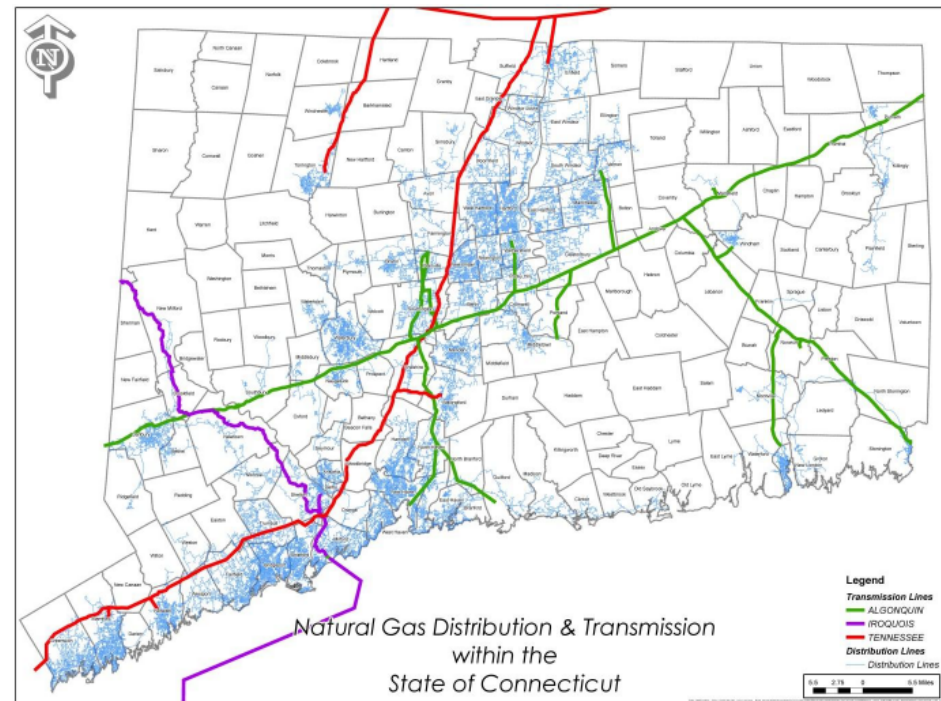
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# Natural Gas Expansion Plan

- June 14<sup>th</sup> - CNG, SCG and YG filed Joint Plan with DEEP and PURA
- Completed over 300 data requests and five days of PURA hearings
- Final Decision issued by PURA on November 22<sup>nd</sup>

## Highlights

- Increased supply from gas transmission system and LNG
- 900 miles of new gas mains (many to 'anchor loads')
- 280,000 new gas customers statewide over a ten year period
  - Levels the playing field for CT
    - 30-35% - Connecticut
    - 47% - Massachusetts
    - 48% - Rhode Island
    - 50% - US



# Expansion Plan Decision

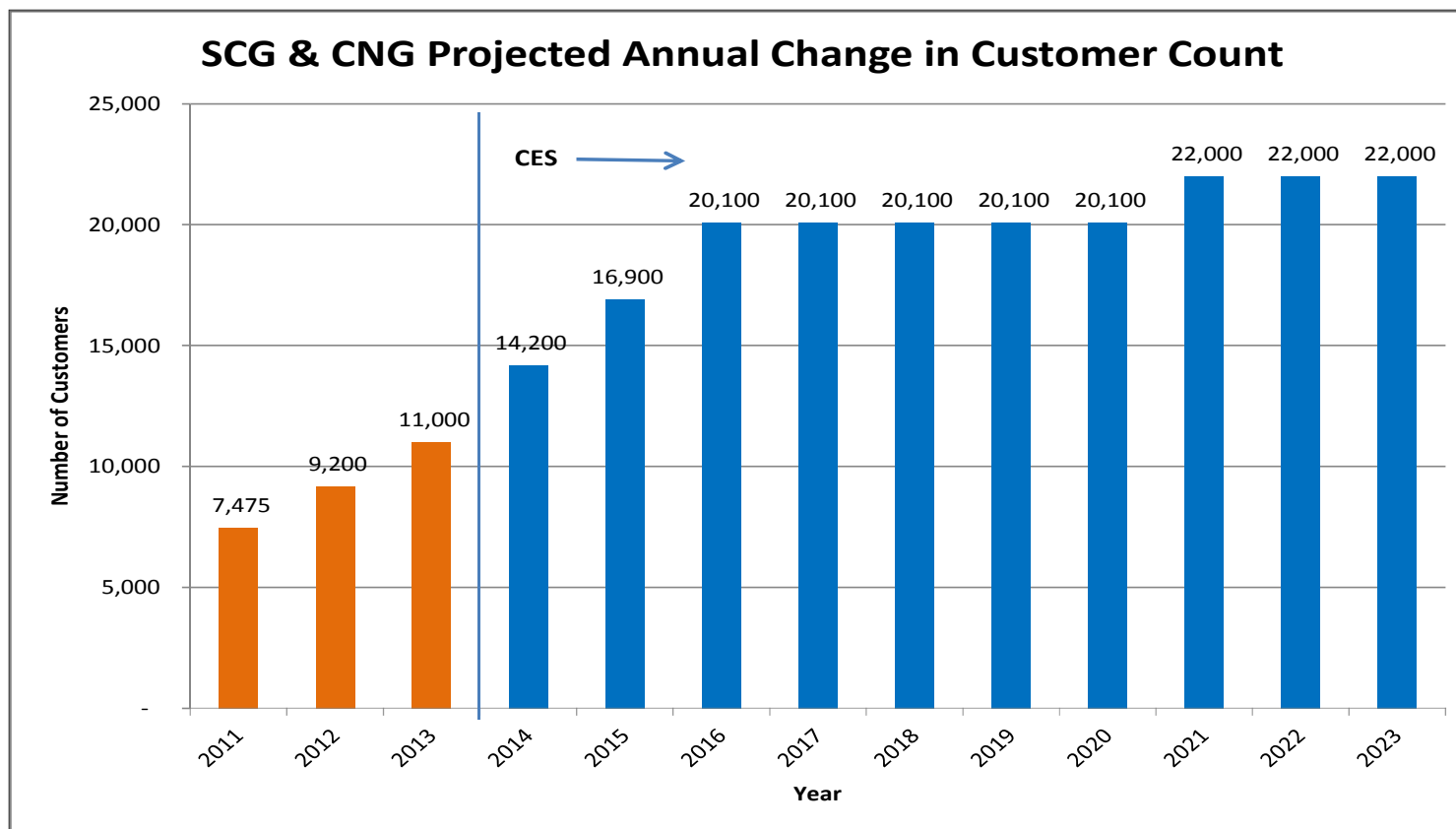
- Capacity Plan – Preapproval of the precedent agreements for additional long-term capacity to ensure adequate supply
- System Expansion Rates - new tariffs to ensure that new gas customers pay the majority of the cost of gas expansion
- Use of Non-Firm Margin – used to further offset the cost of expansion, including the funding of societal benefits projects, and help shield existing customers from bearing the cost
- Changes to the Hurdle Rate Model





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# Growth Strategy with CES



Cumulative Change in Customers	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	14,200	31,100	51,200	71,300	91,400	111,500	131,600	153,600	175,600	197,600





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# Natural Gas Opportunity by Customer Segment

## Segment A (On-Main/Low Use)

- 180,000 On-Main and Low-Use customer prospects
- Very cost effective due to low conversion costs

## Segment B (Gas Prospects)

- 90,000 viable off-main prospects
  - Anchor customers with high energy consumption
  - Residential clusters with proximity to gas main and other potential customers

## Segment C (Referral to C&LM)

- Almost half of CT residences are unlikely prospects for gas conversion
  - At this time, their distance from gas mains limits opportunity
  - Drive this segment to broader and deeper participation in Conservation & Load Management programs





## Gas Expansion Challenges

- Segment B Customers
  - Is gas available in my neighborhood?
  - Portfolio View
  - Transition from Reactive to Proactive
- Hurdle Rate model
- Customers' cost of conversion
  - HVAC Contractor Network
  - Financing the investment
- Natural gas supply



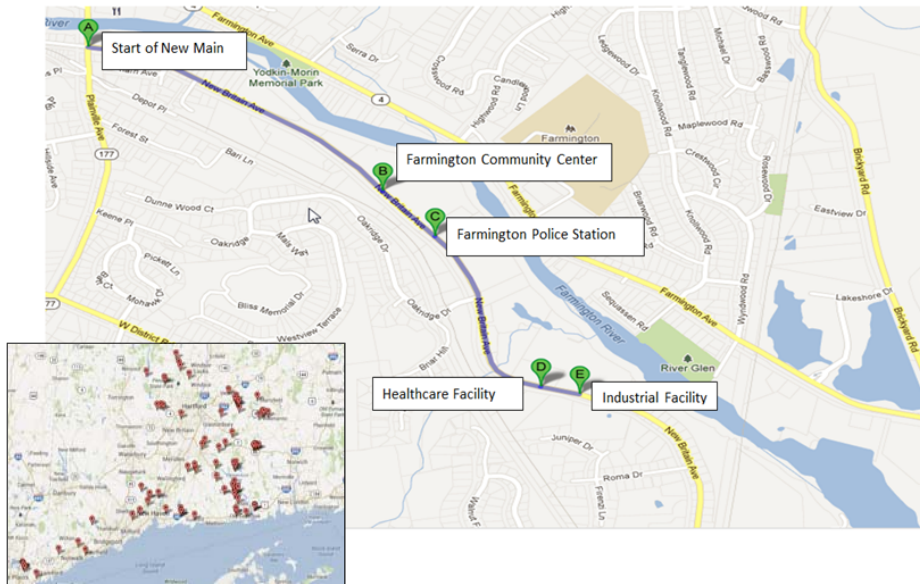


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## Anchor Customers

New Britain Ave. Expansion, Farmington CT, 1.5 miles, 162 Residential Prospects

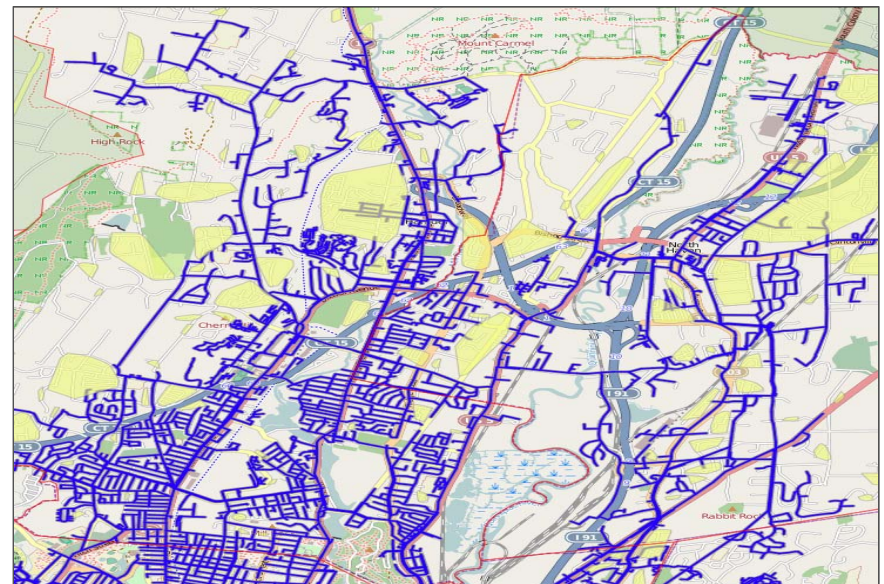


- > Create clusters and rank densities of homes for proactive expansion into neighborhoods
- > CES tools – Hurdle rate model, projection of future participation, financing, etc. will help to accelerate expansion

# Segment B – Cost-effective Expansion

- < Municipal buildings, schools, factories, health care facilities, etc.
- < Cost-effective expansion of gas distribution system which, in turn, allows access for other prospects

## Residential Clusters





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# Is Gas Available in my Neighborhood?

External website for customers to determine if they are near gas main

- Based on CES Segments –Segment A- Yes, Segment B - Maybe, Segment C - No

Internal Customer Analysis & Mapping Tool

- Overlay of SCG and CNG gas distribution system and municipal premise data
- Allows expedited assessment of off-main expansion potential



# Portfolio View



Limited grouping of customers within the same geographic area to increase the efficiency of system expansion.



Main Extension	Total Residential	CIAC	# of Homes Required*
Erik Ct	13	\$0	7
Kingswood Pl	7	\$3,746	4
Christopher Cir	12	\$1,851	7
Composite	32	\$0	19







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# Transition from Reactive to Proactive

- Current Process is very reactive
  - “Squeaky wheel gets the grease”
- Results in an inefficient build-out of the gas distribution system driven by customer demand
- In 2013, nearly 2,000 Neighborhood Expansion Projects were analyzed with less than 10% actually being constructed
- Completed projects:
  - Average number of homes passed = 11
  - Breakeven number of homes passed = 7 (64%)
  - Average main length installed = 700'
- Using historical attributes of successful projects, a plan will be developed to target geographic areas that have the highest potential for success
- A proactive approach will allow for a more efficient coordination of marketing, sales, engineering, construction resources, and municipalities



# Hurdle Rate Model

The Hurdle Rate is a financial analysis used to determine whether a new customer can be economically served such that the revenues collected over a period of time will recover the capital investment

- Establish the use of a hurdle rate model using a 25-year payback period
- Eliminate need for hurdle rate analysis for on-main customers less than 150'
- Forecast of Additional Revenues – begin construction with 60% of customers commitment

Many projects that appear viable still do not pass the hurdle rate model due to the capital cost of construction relative to the net present value of projected gas sales



# Customers Cost of Conversion



- Maximize manufacturers' rebates
- Maximize energy efficiency rebates
- Develop a contractor partnership program
  - A "functional framework" of participating heating contractors
  - Improve the "overall experience" for customers converting to natural gas heat while reducing the cycle time
- Launch new financing options
  - The EnergizeCT Heating Loan program affords residential customers an opportunity to finance boilers and furnaces that meet ENERGY STAR® or higher efficiency ratings, at interest rates of 2.99% for loans of up to \$15,000
  - On-bill repayment



## Capacity Plan

- Plan in place to meet growth projections
  - Long term agreements in two pipeline expansion projects
  - Expansion of the daily output of two existing LNG facilities

## Distributed Generation

- Projected customer installed DG installations were included in the gas supply plan
- Additional challenges on the Electric Distribution System
  - Operational issues for the electric distribution system
  - Current rate structure shifts costs to non-participants
  - Need to consider the deployment of DG and renewables on a more holistic approach

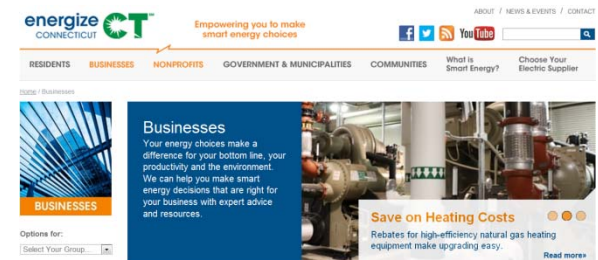




# For More Information



- Energize Connecticut
  - [www.energizect.com/businesses](http://www.energizect.com/businesses)
- LDC Websites
  - [www.cngcorp.com](http://www.cngcorp.com)
  - [www.soconngas.com](http://www.soconngas.com)
  - [www.yankeegas.com](http://www.yankeegas.com)



# Contact Information



**Roddy Diotalevi**  
**Senior Director, Sales & Marketing**  
**UIL Holdings Corporation**  
**[Roddy.diotalevi@uinet.com](mailto:Roddy.diotalevi@uinet.com)**

