



TransAlta Corporation GHG Risk Management Program

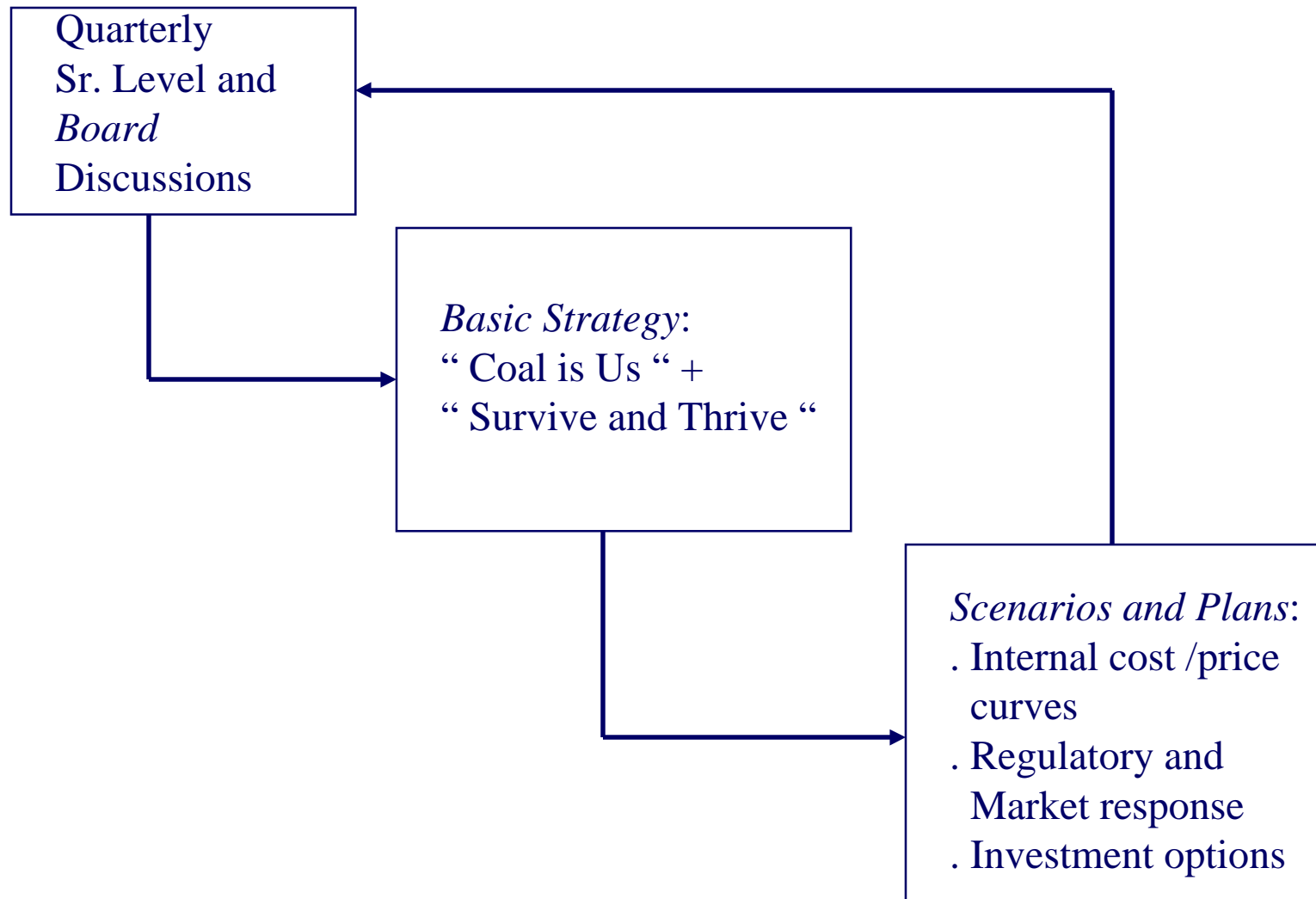
First National Conference
On Carbon Sequestration
Washington, D.C.
May 2001

TransAlta Corporation

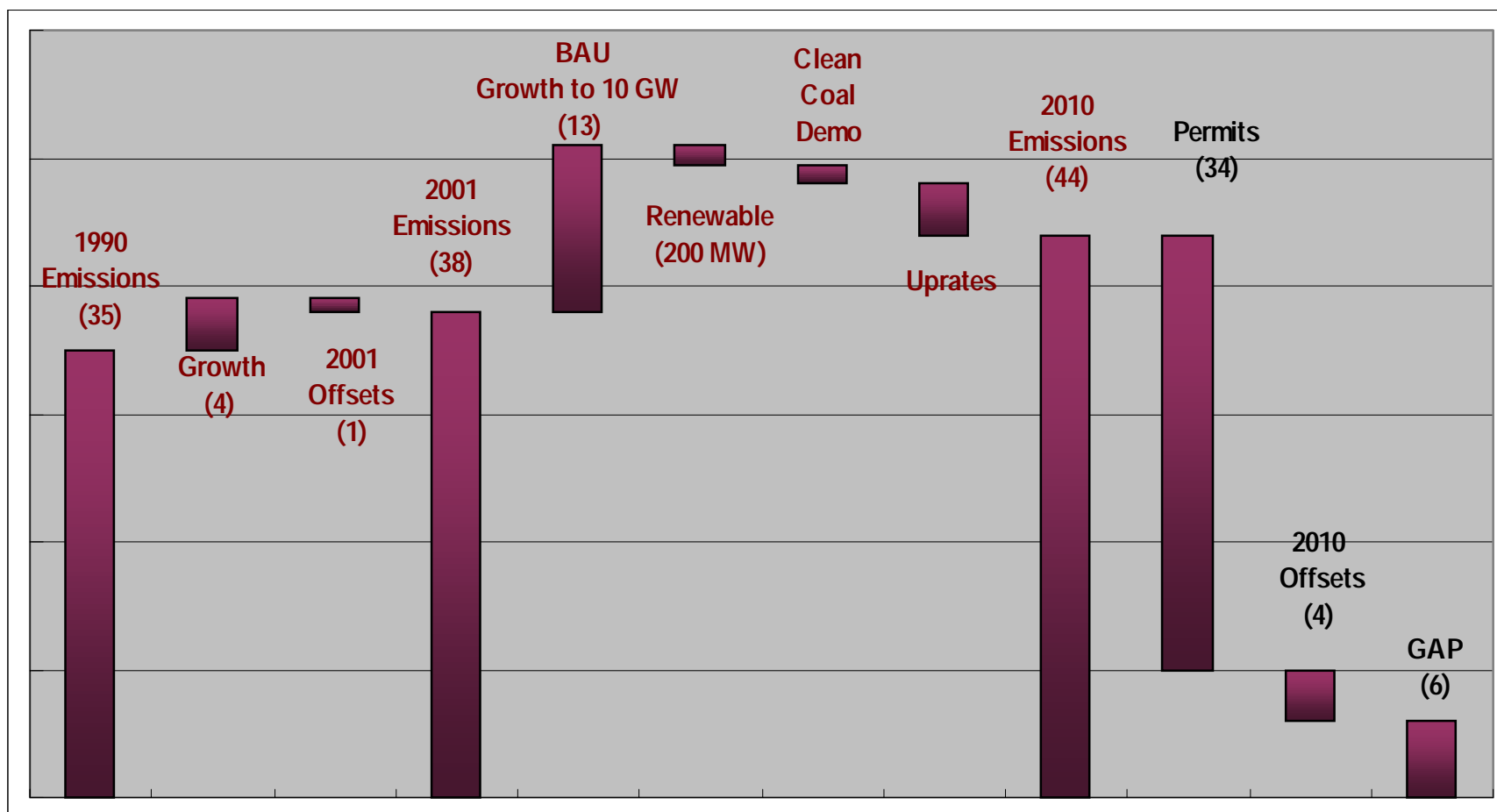
- Electricity Generation and Transmission Company based in Calgary , Alberta,Canada
- 8000 MW capacity now...12000 MW by 2005
- *Growth* by acquisition and build
- Operating in Canada, USA, Mexico and Australia...largely in *deregulated* electricity markets

Growth strategy into deregulated markets means that our exposure to the GHG issue is significant

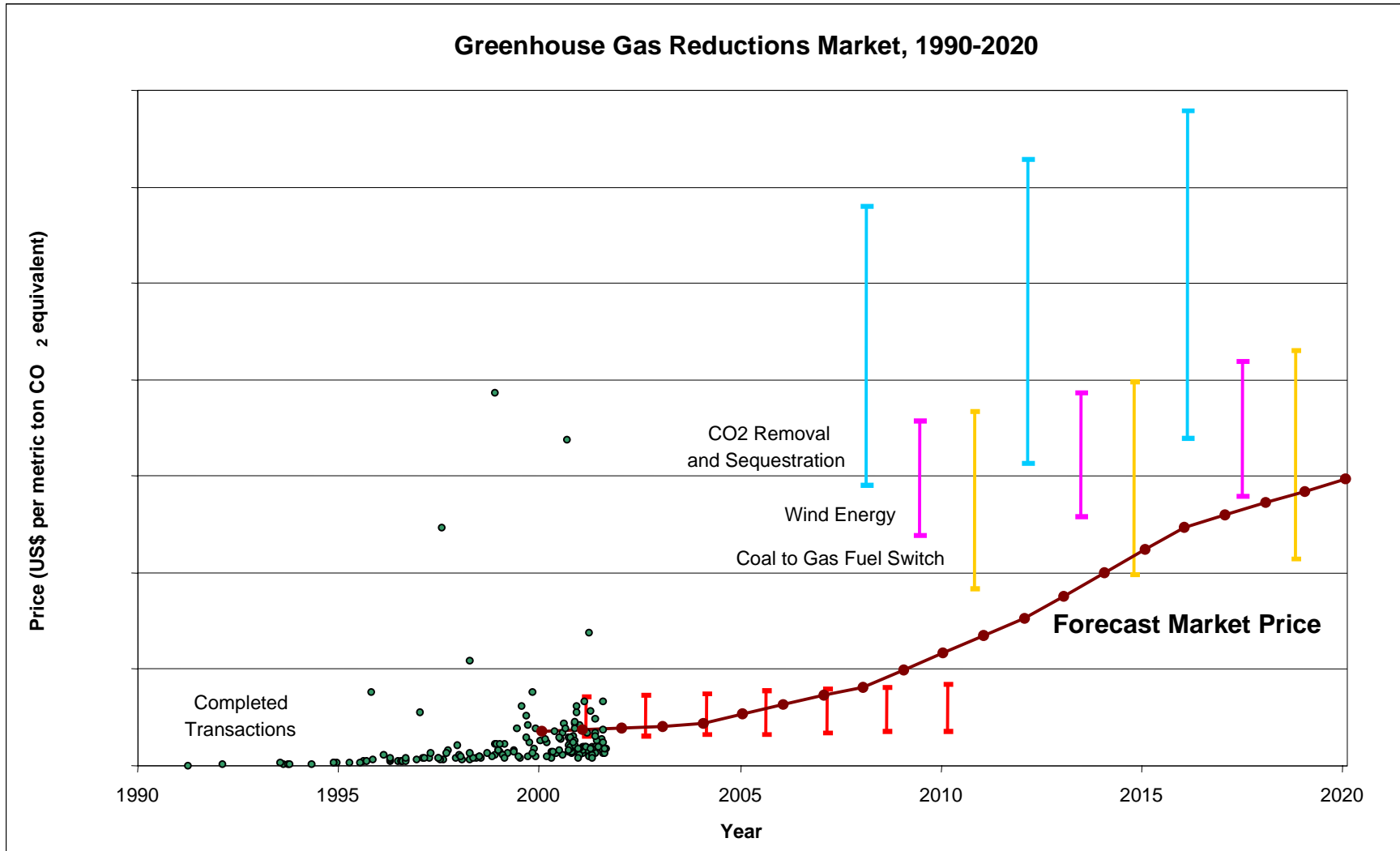
The Development of our strategy



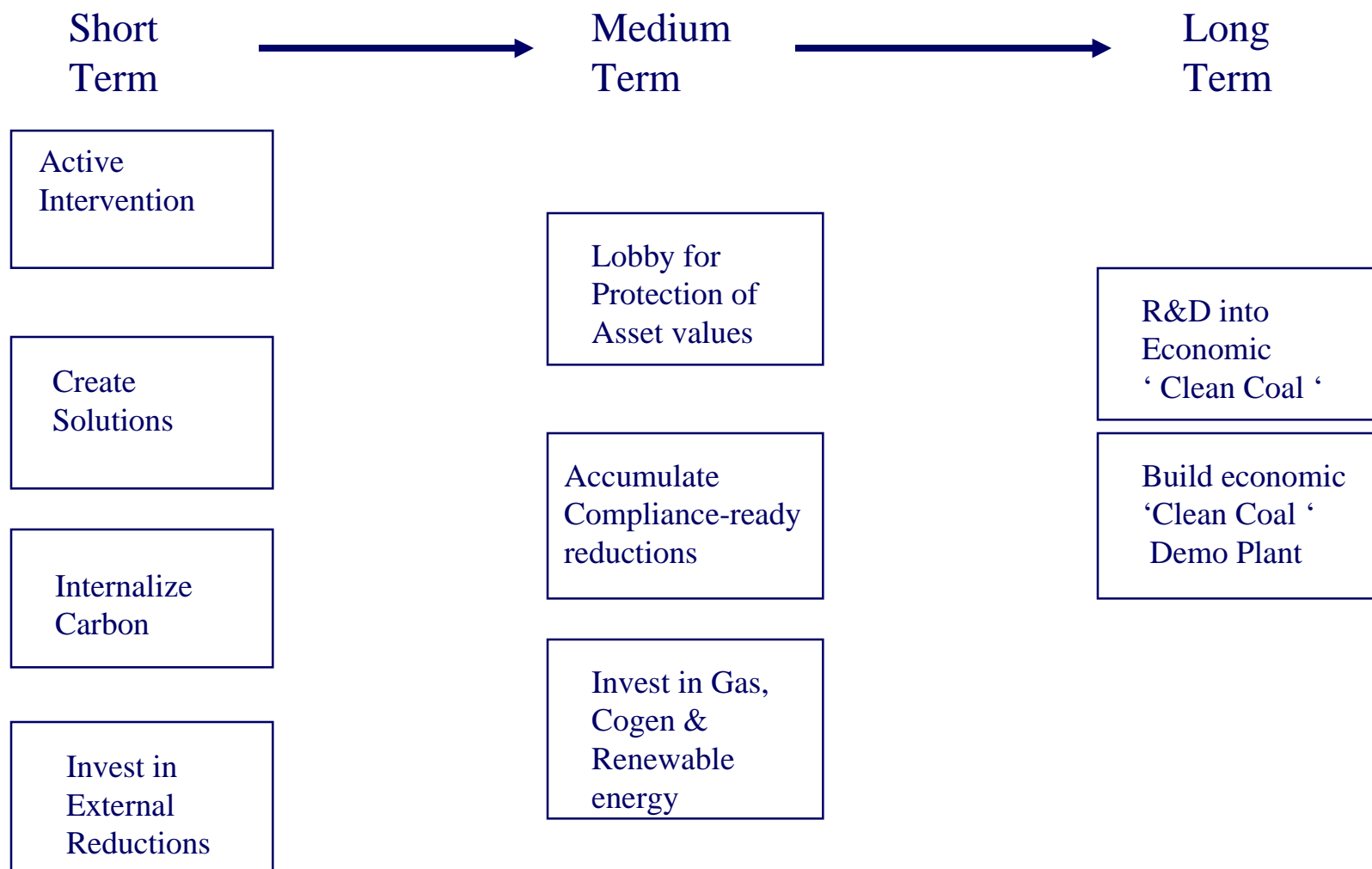
TransAlta GHG Emissions Profile (millions of tonnes per year)



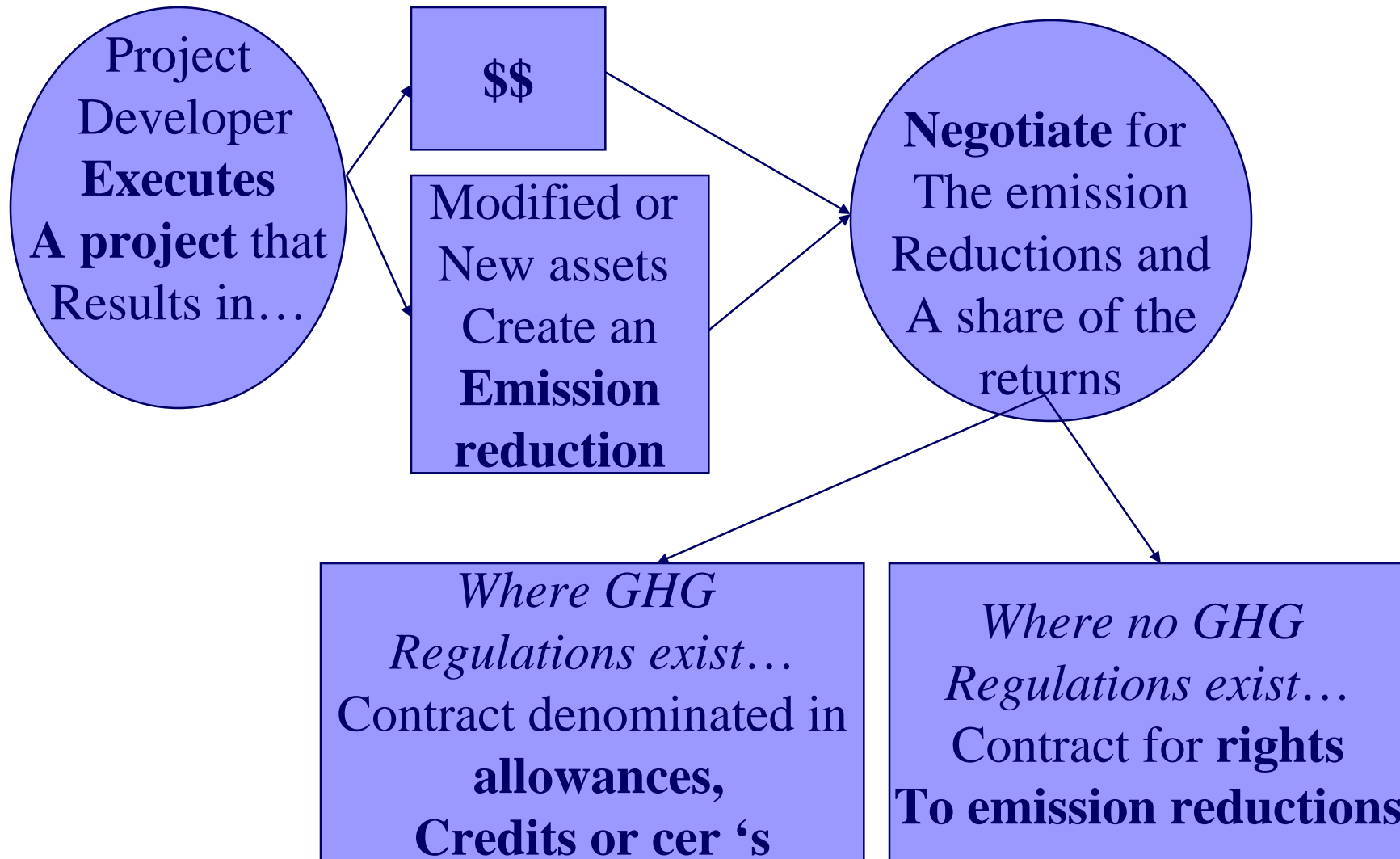
Past and Future Emission Credit / Permit Prices



OUTLINE OF OUR STRATEGY



Offset Projects – Compliance Ready Instruments



Comparison of Emissions Markets to Traditional Energy Products

Criteria	Natural Gas	Electricity	Cap and Allowance (SO ₂)	Cap and Allowance (NO _x)	GHG Emission Reduction Trading
Type of Market	<ul style="list-style-type: none"> asset and fuel management speculation potential 	<ul style="list-style-type: none"> asset and fuel management speculation potential 	<ul style="list-style-type: none"> national compliance market (US) limited speculation potential 	<ul style="list-style-type: none"> regional compliance market (northeast US) limited speculation potential 	<ul style="list-style-type: none"> potential global compliance market limited speculation potential risk hedging
Underlying Product	<ul style="list-style-type: none"> mcf 	<ul style="list-style-type: none"> MWh 	<ul style="list-style-type: none"> SO₂ Allowance 	<ul style="list-style-type: none"> NO_x Allowance 	<ul style="list-style-type: none"> Undefined Credit
Fungibility	<ul style="list-style-type: none"> defined commodity 	<ul style="list-style-type: none"> defined commodity 	<ul style="list-style-type: none"> defined commodity (1 allowance = 1 allowance) 	<ul style="list-style-type: none"> defined commodity (1 allowance = 1 allowance) 	<ul style="list-style-type: none"> undefined commodity (1 tonne CO₂E ≠ 1 tonne Credit)
Revenue Generation	<ul style="list-style-type: none"> yes 	<ul style="list-style-type: none"> yes 	<ul style="list-style-type: none"> speculative trading 	<ul style="list-style-type: none"> speculative trading 	<ul style="list-style-type: none"> yes, if assets or rights are acquired
Volatility	<ul style="list-style-type: none"> significant trading volume able to track volatility 	<ul style="list-style-type: none"> significant trading volume able to track volatility 	<ul style="list-style-type: none"> few trades semi-liquid market limited ability to track volatility 	<ul style="list-style-type: none"> few trades semi-liquid market limited ability to track volatility steady upwards price trend 	<ul style="list-style-type: none"> ill-liquid market no public price disclosure
Key Success Factors	<ul style="list-style-type: none"> market knowledge efficient systems and decision making 	<ul style="list-style-type: none"> market knowledge efficient systems and decision making 	<ul style="list-style-type: none"> environmental policy medium term, local and regional; air quality trends local, state and EPA regulatory scene linkages to other environmental policy initiatives (EG: particulates) that drive supply and demand for allowances 	<ul style="list-style-type: none"> environmental policy medium term, local and regional; air quality trends local, state and EPA regulatory scene linkages to other environmental policy initiatives (EG: particulates) that drive supply and demand for allowances 	<ul style="list-style-type: none"> local, national and international policy developments evolution of trading rules policy (regulatory)
Trading Volumes	<ul style="list-style-type: none"> ~20 financial transactions for each physical transaction spread is \$0.01 on underlying of \$2.00, (0.5%) 	<ul style="list-style-type: none"> ~1 financial transaction for every 9 physical trades spread is \$0.10 on underlying of \$17.50, (0.5%) 	<ul style="list-style-type: none"> ~2 financial transactions for each physical transaction average 5-10 trades per week spread is ~\$3 on underlying of \$212, (1.5%) majority of trading volume and greatest market volatility occurs at annual regulatory true-up period (March 1) 	<ul style="list-style-type: none"> Average 2-5 trades per week Spread is \$200 on underlying of \$5100, (4%) majority of trading volume centered around May 1 - Sept 30 ozone season 	<ul style="list-style-type: none"> few trades per year spread is 150-350% of bid depending on credit category no price disclosure on underlying multiple contracts for each transaction
Inventories	<ul style="list-style-type: none"> daily account balancing seasonality concerns 	<ul style="list-style-type: none"> daily account balancing seasonality concerns 	<ul style="list-style-type: none"> annual account balancing no seasonality concerns 	<ul style="list-style-type: none"> annual account balancing seasonal compliance market (May 1 - Sept 30th) with year round trading 	<ul style="list-style-type: none"> annual account balancing no seasonality concerns


Minutes to Complete Transaction


Days to Complete Transaction


Months to Complete Transaction

Risk Management in Offset Projects

