

TSXV: CST



MANAGEMENT DISCUSSION AND ANALYSIS,  
AS AT JUNE 30, 2014

---

# ENZYMATIC POWER FOR CARBON CAPTURE

































































hydrogen to produce liquid fuels, amongst other applications. CO<sub>2</sub> Solutions' technology is positioned as an ideal front-end solution to provide the lowest possible cost CO<sub>2</sub> feedstock required by these new processes.

### **Carbon Capture and Storage (CCS)**

With 70% of global energy demand currently met through the burning of carbon-based fuels, and demand predicted to double by 2035<sup>20</sup>, the world faces a growing challenge: How to reduce carbon dioxide emissions which cause climate change while not damaging a global economy dependent on fossil fuels. A central issue to this carbon emissions problem is the fact that approximately 8,200 large stationary sources of CO<sub>2</sub> worldwide, such as coal and natural gas-fired power plants, oil and gas production facilities and other large industrial plants generate 14.7 billion tonnes of annual emissions, or half of all total global anthropogenic CO<sub>2</sub> emissions<sup>21</sup>.

As such, to deal effectively with the issue of climate change, these existing large sources of emissions must be addressed. In its Fifth Assessment Report entitled *Climate Change 2014: Mitigation of Climate Change*, the Intergovernmental Panel on Climate Change (IPCC) recognized carbon capture and storage (CCS) as a key part of the mix of various technologies necessary to solve this challenge and reduce the impacts of climate change.<sup>22</sup> The process of CCS involves selectively removing CO<sub>2</sub> from the effluent gases of a power plant or other industrial source and permanently storing the emissions deep underground, most commonly in saline formations. The IPCC has previously estimated that there is at least 2 trillion tonnes of CO<sub>2</sub> storage capacity in appropriate geological formations globally<sup>23</sup>. Based on this, there is approximately 136 years of storage for present worldwide large-source CO<sub>2</sub> emissions.

Given the positive nature of a number of discussions on-going in these potential markets, management is confident that at least one additional partnership will be secured over the coming year.

CO<sub>2</sub> Solutions' management team will continue to pursue its multi-pronged strategy aimed at advancing its technology development and deployment. The prime focus in the short term will be to leverage the Corporation's internal R&D focus and efforts and to fully exploit the current relationship with Husky Energy in order to further advance its technology towards commercial readiness.

### **ADDITIONAL AND CONTINUOUS DISCLOSURE**

This analysis was prepared on September 24, 2014. Additional disclosure is provided on the SEDAR Web site at: [www.sedar.com](http://www.sedar.com).

On behalf of management,

[signed] Thom Skinner

[signed] Evan Price

Thom Skinner, CPA, CA  
Senior Vice President, Finance  
and Chief Financial Officer

Evan Price  
President and Chief Executive Officer

September 24, 2014

---

<sup>20</sup> U.S. Energy Information Administration

<sup>21</sup> International Energy Agency (IEA) GHG Program; large source defined as >100,000 tonnes-CO<sub>2</sub> emissions annually

<sup>22</sup> <http://www.globalccsinstitute.com/news/institute-updates/role-ccs-explained-latest-ipcc-report>

<sup>23</sup> IPCC, *Special Report on Carbon Dioxide Capture and Storage*, 2005 ([http://www.ipcc.ch/pdf/special-reports/srccs/srccs\\_wholereport.pdf](http://www.ipcc.ch/pdf/special-reports/srccs/srccs_wholereport.pdf))