## PROJECT PLAN

# NUCLEAR TECHNOLOGY PEBBLE BED MODULAR REACTOR



#### AscenTrust, Inc.

Nuclear Technologies, Inc.

Dedicated to Excellence

Mr. Joseph Fournier, B.Sc.E.E, M.Sc.E.E., President
16920 Kuykendahl Suite 200
Spring, Texas, 77068
email –ioseph@ascenttrust.com

MISSION STATEMENT: AscenTrust, LLC, and Nuclear Technologies, Inc.'s vision is to utilize American, German, Chinese and South African experience coupled with cutting edge advances in gas turbine technology and using the core ideas of fourth generation nuclear technology to provide low cost, environmentally friendly (Green) energy to America and the World for the Twenty First Century and beyond.

#### PROJECT PLAN

#### **SECTION ONE: PREAMBLE:**

In December of 2002 the Nuclear Research Advisory Committee and the Generation IV International Forum published a document referred to as the Generation IV Roadmap (A copy of this document is attached to this document as Attachment A).

### The following is an excerpt is from the Executive Summary of the Document

This report provides a description and evaluation of candidate gas-cooled reactor (GCR) systems in support of the Generation IV Technology Roadmap. The GCR systems described and evaluated herein are based on the twenty-one summary concept descriptions provided (1) in public response to the U.S. Department of Energy request for information and (2) by members of the Gas-Cooled Technical Working Group (Gas-TWG). The latter descriptions were prepared to complement the public response to ensure the broadest range of candidate systems were considered based on the collective knowledge of the Gas-TWG members, and include review of selected reports prepared by other agencies worldwide.

The membership of the Gas-TWG is broadly experienced in the design, construction, and operation of reactors, in particular, GCRs. The membership is drawn from several countries and international organizations and provides an international perspective and opinion of the potential for GCR systems to fulfill the



goals for sustainability, safety and reliability, and economics for a Generation IV nuclear energy system.

The concepts considered are grouped into the following four concept sets, representing the common capabilities and attributes among the concepts:

- Modular Pebble Bed Reactor Systems
- Prismatic Fuel Modular Reactor Systems
- Very-High-Temperature Reactor Systems
- Gas-Cooled Fast Reactor Systems.

The top technology of the **Generation IV Roadmap** was a technology that the **Senior Engineer** of **AscenTrust,LLC**. (A copy of the **CIS** (Client Information Summary) of **AscenTrust, LLC**. which includes the resume of the **Senior Engineer** is attached to this document as **Appendix A**) was highly familiar with. The Senior Engineer had a design for this technology dating back to his years in Graduate school (1969-1972).

The Senior Engineer has a Master of Science Degree in Electrical Engineering (1969-1972) and his thesis topic was in Plasma Physics (Nuclear Engineering). At the time the Senior Engineer was involved with the Instrumentation and Control System for the CANDU (Canadian Deuterium Uranium) Reactor.

Prior to the **Three Mile Island Nuclear Accident,** on March 28 1979, the answer to the energy problem was the development of Nuclear and Thermonuclear power. The Senior Engineer was deeply committed to the study of nuclear technologies and highly motivated to create his own technology. The result of this creativity was the independent invention of a Nuclear technology which is now called the **Pebble Bed Modular Nuclear Technology** (A high temperature and helium cooled, modular reactor technology).

From 2002 to 2008 the Senior Engineer was the Senior Engineer of Land and Sea Enterprises, Inc. Land and Sea spent a lot of money developing the FEED (Front End Engineering and Design) documentation in order to acquire significant funding to develop the:



#### Nuclear Technology Pebble Bed Modular Reactor (NTPBMR)

In September 2009 the Senior Engineer of Land and Sea Enterprises, Inc. incorporated AscenTrust, LLC. (The Company) while working with Hayman Private Equity LLC. AscenTrust, was formed as a Joint Venture to finance the development and construction of the first Generation IV Nuclear Power Prototype and Power Plant, in the U.S. The stated goal of this **Green** energy producing Project was to launch the Nuclear Renaissance in the United States.

This project will be referred to in this document as the: Nuclear Technology Pebble Bed Modular Reactor Project or as the NTPBMR Project. We are adding the Nuclear Technology to the Pebble Bed Modular Reactor (PBMR) to clearly identify our U.S. based project. The name "Pebble Bed Modular Reactor (PBMR)" has for a long time been associated with the project in South African. However the South African Government stopped funding the PBMR project long ago but a search on the Internet will lead you to the South African Pebble Bed Project which actually incorporates PBMR into the Corporate Logo.

This document consists of the following:

Appendix A: Client Information Summary for AscenTrust, LLC.

Appendix B: Project Justification (Preliminary Private Placement Document)

The **NTPBMR** Project is a complex and highly technical design, co-ordination and licensing project. Because of the technical nature of this Document and in order to assist the reader of this Document we have included the following Appendices:

Appendix C: List of Abbreviations

**Appendix D: Technical Glossary of terms** 

Appendix E: Introduction to the Nuclear Technology Pebble Bed Modular Reactor. This document is a short description of the reactor technology which is being developed by **AscenTrust** and its strategic Nuclear partners.

Also included with this document are several attachments necessary to obtain a knowledge base required to understand the importance of **Nuclear Power**, in the Energy mix of the twenty-first Century and beyond.



Attachment A: Generation IV Overview This is a copy of the Generation IV Roadmap which was issued by the Nuclear Energy Research Advisory Committee and the Generation IV International Forum in 2002.

Attachment B: Appendix created by the Senior Engineer consists of:

**SECTION A: Introduction to Nuclear Physics** 

SECTION B: Health and Safety in Nuclear Systems

SECTION C: Nuclear History and the Regulatory Environment

**SECTION D: Decommissioning** 

**SECTION E: Proliferation** 

**SECTION F: History of Gas-Cooled Reactors** 

SECTION G: Introduction to NTPBMR Technology

**SECTION H: Nuclear Graphite Development Plan** 

**SECTION I: Acronyms** 

**SECTION J: Glossary of Nuclear Terms** 

Respectfully

Joseph Fournier

President

AscenTrust, LLc.