The Great Transition: Build Hope for Humanity, Not Pits – Continued
PROPOSAL TO THE NEW-LAND FOUNDATION
MARCH 1, 2021

Mission and History
Since 1989, the Los Alamos Study Group has worked for nuclear disarmament, environmental protection, social justice, and economic sustainability – mutually-reinforcing aims that map directly onto the converging crises we face, regionally, nationally, and internationally. Throughout this time, we have contributed thoughtful popular and policy leadership on Department of Energy (DOE) and National Nuclear Security Administration (NNSA) weapons laboratory and warhead issues, in which we have considerable – in some respects unparalleled – expertise. We have conducted hundreds of public meetings, and hundreds of briefings on Capitol Hill. We are strictly nonpartisan and factual, and we anchor policy details in a broad historical and technical perspective. We focus on practical outcomes. We have wide technical, legal, and public education experience as well as strong academic and work histories in science, engineering, law, and organizing. We draw on a wide range of other experts as needed. We have been quoted in thousands of newspaper articles and interviewed on hundreds of radio and TV programs. We have won environmental, civil rights, and freedom of information lawsuits. We have blocked major nuclear warhead infrastructure projects at Los Alamos National Laboratory (LANL), in which efforts we have had to work against the arms control community and the New Mexico delegation. We were named one of the nation’s “top ten small green groups” in 2011 and one of eleven “favorite groups” in 2013 by Counterpunch. Our analyses of U.S. nuclear weapon modernization have been significant contributions at Nuclear Nonproliferation Treaty (NPT) review and preparatory conferences and other international fora since the 1990s. We were significant participants at and between all international fora leading to the successful creation of the Treaty on the Prohibition of Nuclear Weapons (TPNW). Greg was a Research Fellow in the Princeton Program on Science and Global Security (PSGS) in 2002 and in 2017-2020 PSGS contracted with the Study Group to produce articles for the International Panel on Fissile Materials (IPFM) blog as well as congressional workshops on plutonium warhead core (“pit”) production.

We have led dozens of public workshops on energy and climate policy and related economic issues, and in 2017 devoted much of the summer to training young people in energy and climate policy. Everything we do is informed by these concerns and our expertise in them. We seek to further leverage our knowledge, government access, and media relationships in these issues.

The Study Group’s principled and broadly-informed voice is more important than ever as our society attempts to navigate through unprecedented political, environmental, and social upheaval, including the current pandemic. As we wrote to you in 2019, upheaval has intensified and will continue to do so; the previous “normal” will not return. We began with a mission of assisting in the reordering of nuclear weapons policy after the Cold War. A new Cold War is now underway, masking the inexorable decline of the U.S. empire. New Start was extended, but anti-Russian and anti-Chinese postures and actions are intensifying. We seek to end the new Cold War in the context of preserving human society and a living planet. To do this, leadership and training from outside the present centers of power are necessary. We can help provide this.

Description of the project
This project is a continuation and update of the project described in our March 2019 proposal. We seek general support funding, to be directed primarily to two interrelated projects.

In the first project we seek to extend by at least a decade the current 32-year hiatus in industrial production of plutonium warhead cores (“pits”). Pit production is not needed to support all currently-deployed U.S. nuclear weapons until at least the late 2030s. The current crash pit production program centered at LANL is
instead a necessary element in a new nuclear arms race which has been accelerated beyond fiscal and managerial sustainability. Delaying pit production will delay any altogether-new warheads beyond current planning horizons, exposing these unnecessary programs to multiple political and fiscal risks.

NNSA is currently working on five warheads simultaneously and preparing for others, while also building extensive new infrastructure. To staff its expanding warhead programs NNSA seeks to increase its total workforce by **50% in just 5 years**. NNSA's costs have risen more than 12% annually since 2013, jumping **23% last year** alone. Despite these increases NNSA, the Government Accountability Office (GAO) (also here), and U.S. Strategic Command all say NNSA's ambitious warhead programs are outstripping available infrastructure and personnel. The questionable availability of new pits is a problem, and not the only one.

In 2018 NNSA proposed, and so far Congress has fully funded, construction and operation of two pit factories, one at LANL and one at the Savannah River Site (SRS). All or nearly all 2020s production would occur at LANL, which is currently required to achieve a production rate of at least 30 pits per year (ppy) by 2026. Combined production from both sites is required to be at least 80 ppy by 2030. All pits produced through at least the early 2030s are for the proposed W87-1 warhead for the Ground-Based Strategic Deterrent (GBSD), which is slated to begin production in 2030. The GBSD/W87-1/Mk21a reentry vehicle is to be a multiple independent reentry vehicle (MIRV)-capable system.

Though not yet public, estimated **capital** costs for pit production have roughly doubled (at SRS) or tripled (at LANL) since last year. LANL's **operating costs** have also skyrocketed. The Biden Administration will have to either increase NNSA's warhead budget dramatically because of this, or face delays in pit production and other programs – which are likely to occur anyway. At LANL alone, pit production efforts will cost $14 billion through FY2030 (slide 29). We do not believe NNSA can successfully fund, build, or operate two factories.

At LANL, production would be based in the 42-year-old PF-4 building originally built for R&D, not manufacturing (p. 2). The GAO, quoting LANL, says LANL is only “marginally capable” of 30 ppy by 2026 (p. 30), as former NNSA Administrator Lisa Gordon Hagerty has also testified. Key LANL projects needed for pit production will not be completed until FY26-29 (pp. 193, 433, 490). At LANL, **two production shifts and one maintenance shift are needed on a 24/7 basis to reach 20 ppy** (p. 15), with dramatic cost and risk ramifications. LANL will not even have work space for the staff it needs to hire. We estimate LANL pits will cost $38-60 M each (slides 29-31), almost an order of magnitude more than the Congressional Budget Office's estimate for SRS (p. 14) and roughly two orders of magnitude beyond NNSA’s inferred cost (p. 22). Safety issues at PF-4 and supporting facilities remain unresolved, as do waste management issues.

At SRS, production would be housed in a remodeled, partially-built new facility five times the size of PF-4 (pp. 48, 79). The SRS facility would easily accommodate ≥80 ppy production (pp. 76-79), if ever needed.

NNSA (p. 2) and the Institute for Defense Analyses (IDA) (p. vii) have said the 2030 requirement is highly unlikely to be met. DOE has never completed any project of the scale and complexity of these projects without large cost overruns and schedule slippage (pp. v-vi). In recognition of these realities, pit production requirements were modified by Section 3114 (pp. 992-993) in the fiscal year 2021 National Defense Authorization Act, which creates conditions that could lead to a delay by up to 5 years in any or all pit production requirements.

We believe we can halt quantity pit production for at least a decade by halting it at LANL and we are asking for your help to do so.

**This project will continue our explication of these and related realities to all interested parties in a stream of well-referenced expert publications, analyses, media backgrounders, congressional and executive branch correspondence and meetings, seminars, and articles.**

We are also beginning a major advertising and media campaign. We are uniquely positioned to link national, international, and regional perspectives, interests, and parties on this and related issues, while bringing our wider national security, energy, and climate expertise to bear as appropriate. We will do that.

The **second project** concerns the nuclear posture of the Biden Administration, specifically regarding NNSA’s programs and budgets and the GBSD program.
As noted above, NNSA is overreaching and will need considerably more money than the Trump Administration has projected to successfully complete its programs of record. There are few expert voices with the ability to articulate “good government” considerations in support of arms control goals for NNSA’s warhead complex. We will do that.

We have so far proposed slowing down and deconflicting the Life Extension Programs (LEPs); downscaling NNSA hiring to avoid committing to excessive workforces and ease workload leveling; eliminating GBSD or at least its MIRV capability; converting the W87-1 LEP into a prototyping effort only; using W87-0s on GBSD if GBSD proves unstoppable; delaying the first production unit of the W93 from 4 to 22 years depending on policy vis-à-vis the UK; eliminating early-time stockpile pit production at LANL; leveling workload at the Pantex nuclear weapons plant by increasing dismantlements; and capping Weapons Activities spending at its current level.

The present LEP schedule and associated hiring and infrastructure plans comprise a self-effectuating device for uncontrollable budget growth. It will be very hard to achieve arms control goals with the even greater pork-barrel political pressure that would result from these additional hires. In other words, a policy “ratchet” has been set up that must be released now lest it become even more difficult to do so later.

A nuclear warhead complex with 60,000 workers needs a lot to do. It needs novel warheads to design, test, and build, and in quantity. As noted the present LEP schedule is too ambitious to succeed. Money alone cannot solve NNSA’s schedule and management problems.

NNSA warhead spending is already more than three times the average Cold War level in constant dollars for comparable work. It will need to grow considerably to support the two-site pit plan and the five current LEPs. NNSA is also supporting two growing weapons physics laboratories at greater than Cold War levels. In constant dollars, LANL now spends ten times what it spent in 1955. All this is a runaway situation that will not end well – a bubble that will burst, one way or another.

We see these “good government” considerations as complementary to the usual stockpile-related concerns of arms control and are eager to bring these powerful arguments into coordinated truth-telling. **We will do so in congressional briefings, in meetings with executive branch officials, in the media, via articles we write, in full-page ads and other advertising, and in briefings for interested parties, both professional and popular. We will build bridges.**

As noted in previous proposals, these two projects are part of a necessary and soon force majeure reorientation of national security. Given the converging crises we face, current US security policies are not compatible with national or even human survival. We will articulate this contradiction and convince others with respected voices to do so as well. The new administration provides a new and possibly more fruitful opportunity to do this.

Creating the present impasse in pit production has been a long effort, by this organization as much or more so than any other. The temptation to actively or passively support pit production in the immediate future would waste this crisis, while also failing politically because, objectively, LANL provides neither enduring nor adequate pit capability. The tendency to cut yet another horrible “deal” that increases the warhead budget must be resisted in favor of a fundamental transformation of security policy toward human and environmental sustainability, including deep cuts to the nuclear arsenal and budget. This is the nuclear policy lodestar around which diverse efforts should gather. We need to build hope for humanity, not pits.

We will continue to articulate – in Congress, in the popular press, and elsewhere – the reality of the unavoidable “Great Transition” before us. Any “green new deal,” we have said and will continue to say, must involve reorientation of national security policies, for practical political as well as fiscal reasons.

**How will your project make a difference?**

Despite the destructive elitism and partisanship afflicting work in our field, we are uniquely capable and situated to lead on many of these issues nationally. The arms control community has not shown the willingness to engage deeply on non-stockpile NNSA issues. There is a leadership gap. For example, that
community has not opposed early-time pit production, even though the main reason for that production is to produce W87-1 warheads for the GBSD we all oppose.

Successfully delaying pit production would help downsize, de-MIRV, and/or delay GBSD, eliminate a second pit factory, prevent hiring ~2,000 staff, and save billions if not tens of billions of dollars. Most important, it would seriously demoralize the nuclear weapons establishment, with wide ramifications. Even short of that our work with congressional colleagues, often based as it is on long-standing relationships, will affect legislation, policies, and budgets as it has in the past. Our briefings, papers, and other communications are frequently praised by those colleagues. We reinforce their better angels.

We will inject into committee deliberations what we believe to be more politically practical and effective approaches to nuclear disarmament than we now see, while reaching out to a wide spectrum of other actors inside and outside government. We will continue to help congressional staff ask penetrating questions. We will assist all parties in cross-agency and cross-party communications on key issues, both badly needed. We will continue to assist GAO, the Office of Management and Budget (OMB), the Defense Nuclear Facilities Safety Board (DNFSB), and now key Pentagon personnel in the new Administration. We will foment national media coverage of these issues while trying to keep regional reportage from falling under the nuclear spell. We will write national articles; no one else can address the above subjects better. We have a great deal of credibility regionally, nationally, and internationally and will leverage this as we can.

There are no other New Mexico organizations capable of regional leadership on nuclear weapons issues.

**How exactly will you accomplish your objectives?**

We will extensively analyze and publish regarding key planning and budgeting documents. We will pursue Freedom of Information Act (FOIA) requests, litigating as necessary. We will provide analytical products to key nuclear decisionmakers across government, to the press, to our membership, and to other NGOs. We will support, extend, and where necessary critique advice from other organizations in the field, broadening the dialogue. We will examine pit production with and without a smaller arsenal and, increasingly, in the context of the non-military, non-nuclear crises we face. We are eager to travel to Washington but until conditions change we will intensify our schedule of telephonic and other electronic meetings.

We will work extensively with the news media. We will publish our products externally and on our web site. We will train members of a new generation of activists – interns, contractors, and hopefully future staff – who will assist with these projects.

**Whose minds do you have to change to achieve your goals?**

It is not so much that we have to change peoples’ minds as assist them in understanding present realities and the implications of unfolding events, both of which constrain policy in unexpected ways. Much of what we seek can be accomplished at the staff level. As previously noted, sometimes a single staff member can inject a reporting requirement, or (if there are allies) successfully lead efforts imposing a funding restriction or setting up a future review. Common-sense questions can lead to delay or eventual abandonment of bad projects. Facts matter a great deal and are consistently underrated.

Aside from the four key congressional committees and Congress’ analytical agencies, the civilian executive branch minds we need to change are located at DOE, NNSA, in the Pentagon’s policy offices, and at OMB and elsewhere in the White House. We can reach some of these. STRATCOM helped defeat the previous pit factory and may help delay production now. We had then and have now no direct contact with them.

Obviously nuclear weapons policy is constrained and influenced by overall defense, fiscal, and foreign policies, supply chain and personnel issues, and management issues. Some of these factors are outside government’s immediate control. We are a trusted source as regards some of these.

Our long-standing relationships with key reporters and editors have been very fruitful. However faces do change. It is critical but difficult to educate and where possible inspire reporters.
What decision-making bodies do you have to persuade?

We often need persuade only one decision-making body or key person, if he or she is strongly persuaded and the evidence is strong. Traditionally, we fare best with appropriations committees; under current leadership we may reach the armed services committees best by convincing GAO first. We have been influential at OMB and DNFSB and hope to continue that. We have hopes for some executive branch appointees despite the hawkishness of the administration generally. Editors and reporters matter greatly – and so do young people making early career decisions.

What constituencies or clients will your projects serve, and how will you reach them?

This question is not particularly applicable. We do pay very close attention to key constituencies.

If you intend to measure your results, please explain what quantitative indicators you will use.

Our record of published analyses, meetings, events, correspondence with decisionmakers, and news media successes are important measures of our success, as is the objective delay of NNSA’s pit production efforts and any legislative and executive branch decisions which help accomplish that. Objective delays in the stockpile management program along the lines indicated above would be victories.

Los Alamos Study Group Grant Report for March 1, 2019 – February 25, 2021

Our last proposal to New-Land Foundation included a grant report for August 1, 2018 – February 28, 2019.

Our electronic communications in this period included 26 bulletins to our nation-wide listserve of 1,435; 51 letters to our New Mexico list serve of 505; and daily news briefs and commentary to an “inner list” of 20 activists. All of our meetings post March 2020 were virtual. We sent out 26 press releases, had 20 meetings with media, as well as frequent email correspondence. The Study Group had two press conferences, a town hall meeting, and two demonstrations. Greg was quoted in over 100 news articles and had three op-eds published in NM news outlets.

We are constantly updating and upgrading our website to make it as user-friendly as possible and highlight our current projects, such as our advertising campaign of billboards on NM interstate highways. We currently have three billboards, one on I-40 and two on I-25, and are negotiating for a fourth.

The Study Group contracted with two individuals, one full-time for three months as a Research Associate, another person half-time for a year as an Outreach Director; pandemic conditions made outreach difficult. Our staff remains at two, with no program contractors at present. We plan to hire or contract soon, ideally in-office, assuming public health and our financial conditions make that possible.

We hosted 17 public meetings and 16 strategy meetings in New Mexico. LANL held two subcontractor forums of which Greg and board member Lydia Clark attended and followed up with bulletins, emails, press releases, and opinion editorials. The Study Group also submitted formal comments on four environmental impact statements.

We met with NM state and county officials five times and Greg was invited to testify twice on plutonium pit production for a NM legislative committee. The Study Group, along with Princeton University, sponsored a well-attended workshop on pit production in Oct 2020. Greg also wrote three blog posts for the International Panel on Fissile Materials.

Greg made three trips to Washington, DC during this period and met with congressional staff and others in a total of 29 meetings. In February 2020, he also attended the Nuclear Deterrence Summit via a courtesy invitation from the sponsor, Exchange Monitor publications & forums – the only NGO present there. Since then we have remained in touch with key staff only by email, video and telephone. We hope to be able to return to our face-to-face meetings in Washington as soon possible and are meanwhile stepping up communications to the new Congress and Administration.

We recently provided a private briefing on plutonium pit production for several GAO officials to support a current project. We continue to monitor virtual congressional committee hearings, sharing comments and key video clips with media and others.